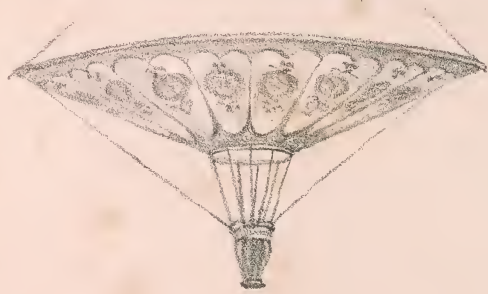




Drawn on stone by Thomas Curran from a sketch by J. B. French in the possession of the Widow

Robert Cocking
Aged 61.

who lost his Life at Sea in Kent, by a descent in his Parachute, from the Nassau Balloon, 24th July 1837



Published for the Benefit of his Widow, by George Roberts, 12, York Place, Edinburgh.



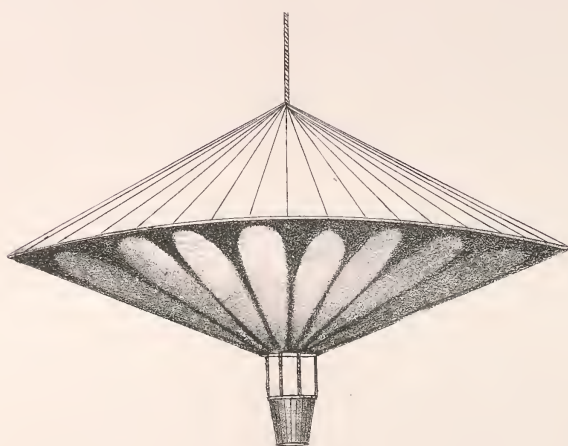
Mr Robert Locking.

Painted by Wm. S. G. H. HODGKIN in 1837



Mr Robert Locking.

*Presented with N^o 8 of the **WONDER** Augst 12th 1837.*



PARACHUTES OF M. GARNIERIN AND M^r COCKING.



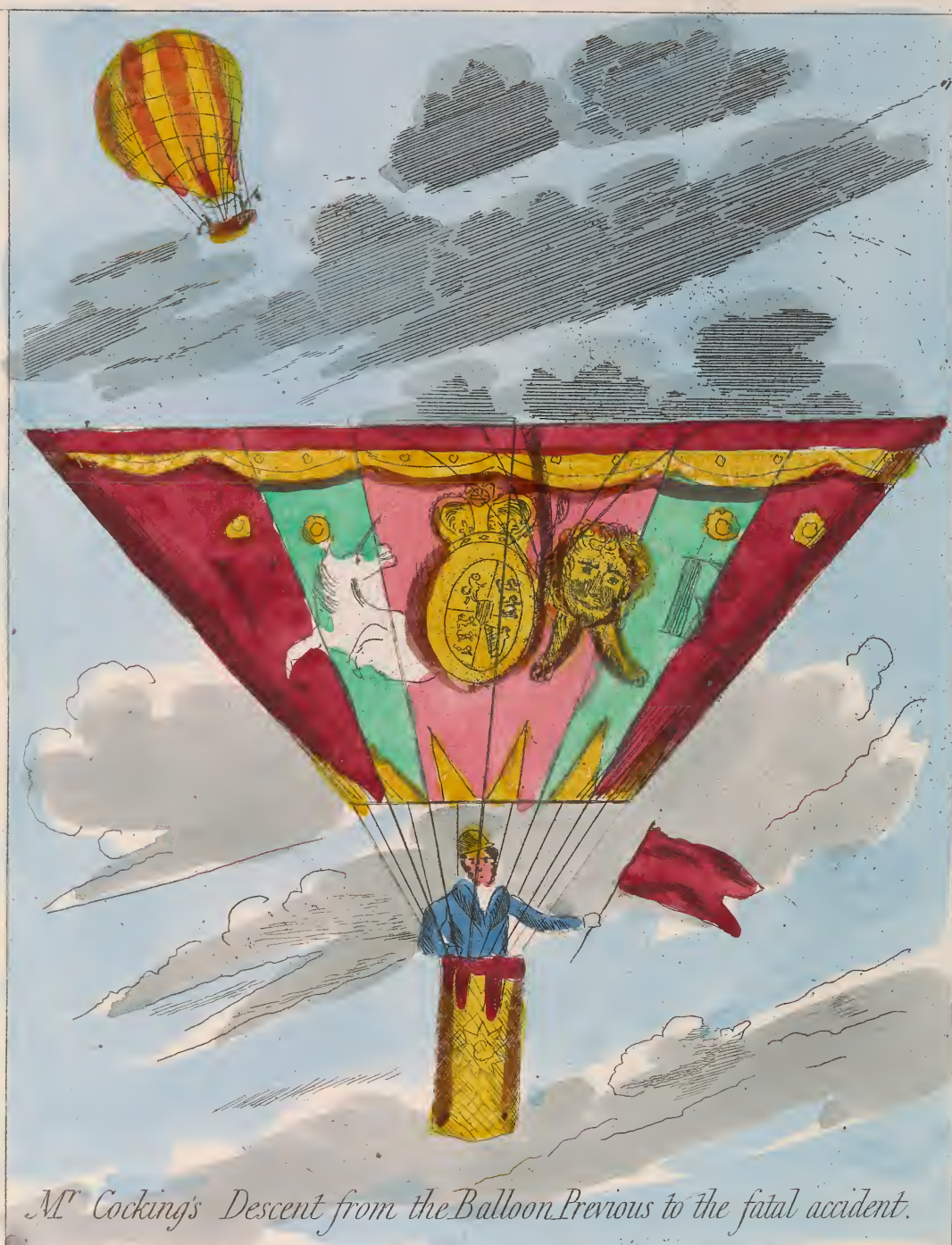
*The Ascent of the Royal Nassau Balloon from Vauxhall,
with the Parachute attached.*

The Sketch taken by an Eye-witness

*London, Published by William Follis, Stationer's Alley, Lancaster Square
& Reeves & Sons, Cheapside.*



*The fatal Descent of the Parachute by which
Mr. Cocking lost his life.*



ACCURATE ENGRAVINGS
OF
THE PARACHUTE
AND THE
Royal Nassau Balloon,

From Drawings made by Mr. Cocking's Permission, and under his own immediate superintendence, accompanied with an authentic description of this novel and interesting Machine, and the fullest account of the Ascent and Descent, will appear without extra charge, TO-MORROW, in

THE CASKET,

The cheapest weekly miscellany of Literature, Science, and Entertainment, consisting of 16 quarto pages, price only Twopence.

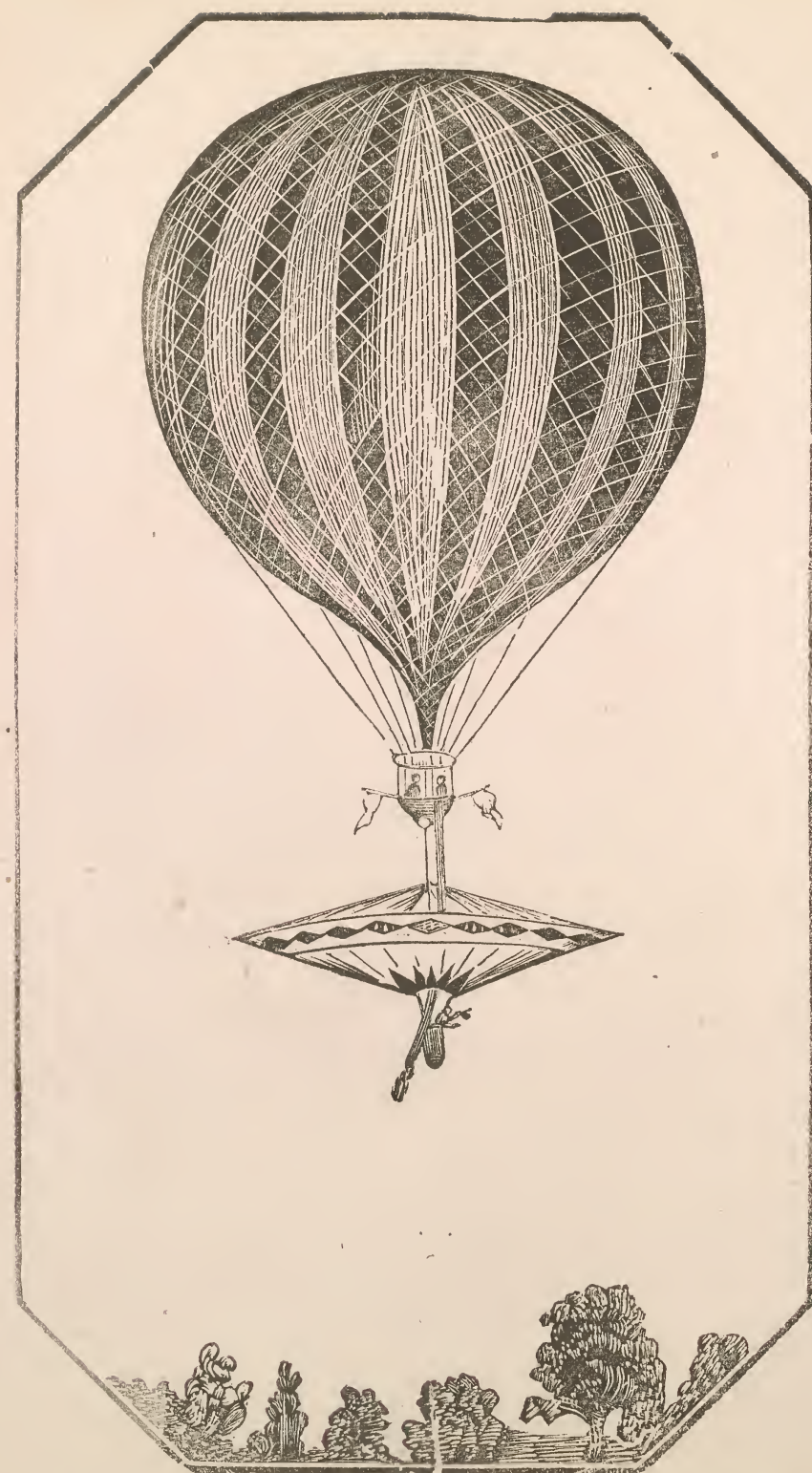
Published by BERGER, Holywell Street, Strand: PRIOR and Co., 59, Fleet Street, and Manchester; CLARK, Warwick Lane, and sold, on order, by all dealers in Periodicals.

*Ascent from Vauxhall the 24 July 1837,
Mr. Cocking was killed on Blackheath the same evening.*



The terrific descent of the Parachute as it appeared after being detached from the Balloon, by which it ascended 5000 feet; containing the late unfortunate Mr. Cocking, who was killed on the spot, July 24th 1837 Aged 61 years.

London. Published by William Follis, Sidney's Alley, Leicester Square, & Reeves & Sons, Cheapside.



*The Ascent of the Royal Nassau Balloon from Vauxhall,
with the Parachute attached.*



Mr. COCKING.



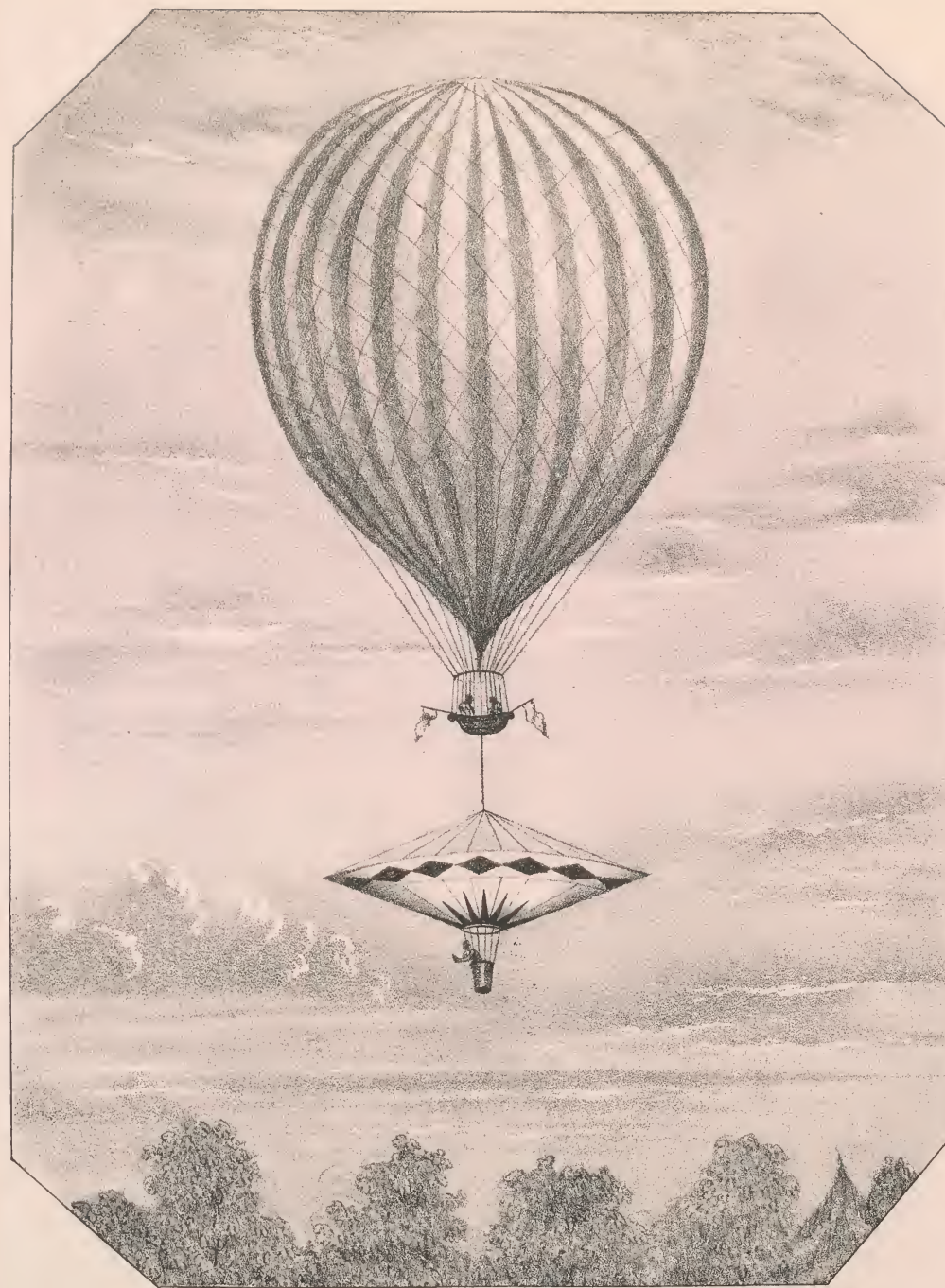
*The fatal Descent of the Parachute by which
Mr. Cocking lost his life.*



*The Ascent of the Royal Nassau Balloon from Vauxhall,
with the Parachute attached.*



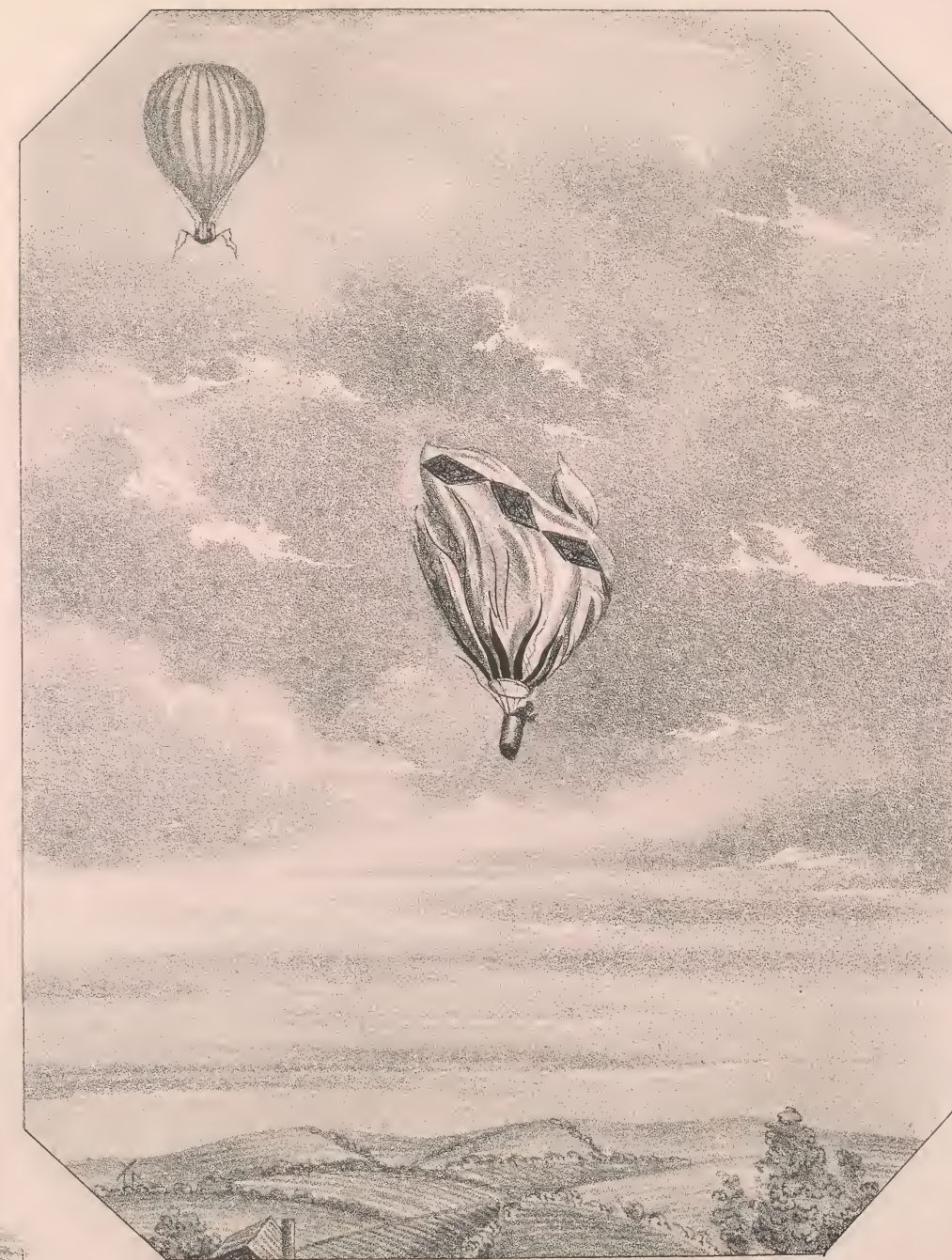
*The fatal Descent of the Parachute by which
Mr. Cocking lost his life;*



the **NASSAU BALLOON** with
The Parachute as it ascended.



Printed by W. Clark 22, High Holborn.
MR. COCKING.



the **PARACHUTE** as it
descended by which Mr Cocking
lost his Life. July 24th 1837.

THE

WONDER.

"WONDERS WILL NEVER CEASE."—*Old Saying.*

No. 6.]

SATURDAY, JULY 29, 1837.

[Price Two Pence.]

ASCENT OF THE BALLOON FROM VAUXHALL, AND DESCENT OF THE PARACHUTE.

Vauxhall Gardens were crowded during the whole of Monday afternoon by an immense assemblage of persons, drawn together to witness the hazardous, and, we regret to add, fatal experiment of Mr. Cocking, to descend from an altitude of upwards of a mile in a parachute of his own invention. No attempt of a similar description has been made in London, we believe, since the experiment of Monsieur Garnerin, upwards of thirty years ago; and the greatest curiosity was naturally excited as to the result. Thousands of persons filled all the streets and avenues in the neighbourhood of Vauxhall, and a joyous crowd swarmed on every eminence and open spot that commanded a fair view of the horizon. The time fixed for the ascent of the aeronaut was five o'clock, but on our entering the Gardens at that hour we found that the process of inflation of Mr. Green's Nassau balloon was not yet completed. This afforded us an opportunity of inspecting the parachute in which Mr. Cocking contemplated his awful descent, and we had some conversation with the unfortunate gentleman on the principle of his contrivance, and the altitude at which he proposed to sever his connexion with the balloon of Mr. Green.

Mr. Cocking, who was a gentlemanly man, short in stature, and somewhat stout, and apparently of the age of fifty-two or fifty-three, gave the most obliging answers to our queries, and explained that his parachute was constructed on a totally different plan from that of M. Garnerin. The latter he described as of the form of an umbrella, closed at the very moment of descent, but expanded by the atmosphere as it approached the earth, and forming a sort of canopy over the aeronaut. His parachute, on the contrary, was in the form of an umbrella reversed, the cavity containing the air being turned uppermost, with the view, he said, of preventing the oscillation which proved so disastrous to M. Garnerin.

As the parachute stood upon the ground, we were unable to see very exactly the place to be occupied by the aeronaut, but shortly afterwards it was raised to an altitude of about four feet, when we perceived a circular orifice of about a yard in diameter, surrounded by a hoop, to which a basket or car was attached by several cords. Mr. Cocking expressed by words the utmost confidence in the result of his experiment, but it appeared to us that it was a confidence which he did not feel. His restless looks and nervousness of manner seemed to belie the bravery of his speech, and we thought more than once that his mind was ill at ease, and that he would willingly have postponed the attempt until a less hazardous trial had assured him of its safety. When questioned as to the danger, he remarked that none existed for him, and that

the greatest peril, if any, would attend the balloon when suddenly relieved from the weight of himself and the parachute (about five hundred weight). Notwithstanding the confidence of this assertion, an uneasy twinkle in his eye convinced us that he was not so sure of this as he appeared to be.

Towards six o'clock, Messrs. Green and Spenser entered the balloon, which was allowed to ascend to an altitude of about forty feet, that the parachute might be brought directly under it, and securely fixed. It was seven o'clock before all the preparations were completed, at which time the whole apparatus was distinctly visible to every one in the gardens. Considerable impatience had been manifested at the long delay which had taken place; but as the position of the parachute became more closely defined, a general clapping of hands expressed the joy of the multitude. Another half hour passed away, during which time Mr. Cocking was engaged in earnest conversation with several of his friends. The band of the Surrey Yeomanry suddenly struck up the national anthem, which being considered the signal for the cords to be loosened, a loud huzza proceeded from the gardens, and was re-echoed by the impatient mob outside. At this moment a tube or pipe of linen was lowered from the car of the balloon through the orifice in the parachute, and past the basket in which Mr. Cocking was to sit. This, we soon discovered, was for the conveyance of the ballast it is found necessary to discharge on the ascent of a balloon, and which, if it had been thrown out in the usual manner, would have lodged in the parachute. All the preparations having been completed, Mr. Cocking (having previously stripped of his coat as too cumbersome, and put on a light jacket) stepped into the car, amid the acclamations of the company. Some of his friends offered him a glass of wine, which he drank, and having shaken them all cordially by the hand, little knowing that it would be for the last time, the cords were loosened, and the balloon and its attendant parachute mounted into the heavens amid the renewed cheering of the crowd. The early part of the afternoon had been remarkably fine and clear, but about this time (half-past seven) the sky had become somewhat overcast, and a breeze had sprung up. No apprehensions, however, were entertained, and the scene at that moment was as gay and cheerful as it is possible to imagine. Above was the majestic balloon, sailing rapidly aloft, its inmates waving their flags in triumph; below was the gaily-dressed multitude mixing their acclamations with the music of the band, and clapping their hands to the adventurous voyagers, little dreaming that the death-hour of the principal actor in the scene was rapidly approaching. The balloon had hardly attained an altitude of two hundred feet,

Printed and Published by HENRY JOHN HOWARD, 137, Fleet-street, London.

when the tube destined for the escape of the ballast from the car above detached itself by some means or other from the basket of Mr. Cocking, and floated like a ribbon in the air. The balloon remained in sight for about half an hour, taking a south-easterly direction, during which time Mr. Cocking had not made any attempt to commence his descent, and it then entered a cloud, and was lost to view. As there was nothing further to be seen, we followed the example of the crowd, and retired from the gardens.

FURTHER PARTICULARS.

The melancholy result of the scientific experiment projected by this unfortunate gentleman, has created general sympathy; and some particulars connected with the event will, perhaps, prove of interest. Of necessity, all the facts relating to the accident can never be known; but sufficient has been collected which may be relied upon, to serve as a foundation for coming to a correct conclusion as to the cause of the fatal termination of the experiment.

The machine which Mr. Cocking purposed to descend in was constructed on a new principle, and it had been inspected and approved of by scientific men, whom Mr. Cocking had consulted on the subject of his experiment. Mr. Green also saw the contrivance, and he made several suggestions, which, had they been attended to, would, in all probability, have been the means of saving the life of the daring aeronaut. Mr. Green did not approve of the tin tubes which the parachute was fitted up with, and he suggested the probable advantage of substituting stretchers made of wood. Mr. Cocking, however, was of opinion that the tubes possessed a great advantage in point of buoyancy, and therefore they were allowed to remain. The principal objections, if it may be so termed, of Mr. Green was, that the machine was not strong enough to sustain the powerful action to which it would be subjected when detached from the balloon, and the event, in a great measure, showed that his judgment was correct. Independent of the experiment of a descent on a new construction of parachute, Mr. Cocking intimated his determination of trying an additional experiment with certain apparatus which he had prepared, and which he had proposed to take up with him in the parachute. This resolution was strenuously combatted by his friends, and it was supposed that the project was abandoned until the evening of the ascent, when it was ascertained that Mr. Cocking intended to persevere, and had come provided with the apparatus. This new experiment consisted of a certain arrangement of ropes, by which Mr. Cocking believed he should be able to regulate his descent, that, in place of falling vertically, he could give the descent a diagonal direction, and thus, should it be necessary, have the means of clearing any object, such as a tree, or even a house. Whether Mr. Cocking really did put his apparatus into action or not is a matter of doubt, but strong grounds exist for believing that he actually did endeavour to effect his purpose, and that in so doing he caused the parachute to swerve on one side, and ultimately to collapse. On the evening of the ascent, and, in fact, during the day, Mr. Gye, jun., begged Mr. Cocking, if he felt the slightest doubt of the success and safety of his experiment, to state the fact candidly, and whatever might be the consequences from the disappointment of the public, even if they went so far as to pull the gardens to pieces, he would cheerfully encounter them. Mr. Cocking declared to the last that he had no misgivings; his confidence was quite unshaken, and he felt no doubt of the perfect success of his experiment. Mr. Green also spoke to him, but he repeated his declarations, and added that he was satisfied his calculations were founded in truth; they had been seen and approved of by scientific men, and they were as sanguine as himself with regard to ultimate success. Mr. Cocking mentioned that his calculations were made not only with precision,

but, in order to guard against accident, he had a power of 120lbs. more than was required.

In this sanguine state of mind Mr. Cocking entered the basket of the parachute, and at the given signal the balloon, containing Mr. Green and Mr. Spenser, rose with its ponderous appendage. In order to facilitate the exclusion of the ballast, a pipe was so contrived as to run from the balloon through the parachute; but the balloon had not risen many feet in the air before it was found that the contrivance was useless. As it was indispensable that the balloon should be lightened, Mr. Green and Mr. Spenser, finding it was impossible to discharge the ballast in the ordinary way, without throwing the materials on the parachute, began instantly to cut up the ballast bags, and to throw out the portions of ballast as far as they were able. This proceeding had the desired effect, and the balloon rose steadily. When about 600 feet from the earth, Mr. Cocking spoke to Mr. Green, and inquired the height at which they then were. He continued to make inquiries as to the height, and, when asked by Mr. Green how he felt, replied that he never felt more comfortable in his life; his calculations turned out according to his expectations, and he had no doubt of accomplishing his task with ease and in safety. When about 5,000 feet from the earth, he called out to Mr. Green and Mr. Spenser that he should soon leave them. Mr. Green bade him good-bye, and wished him a safe descent. The parachute was almost immediately afterwards cut away by the unfortunate gentleman himself, and from that period all is a matter of conjecture. Mr. Green and Mr. Spenser were occupied in discharging the gas on the instant the parachute was severed, but, notwithstanding all their expedition, the balloon, thus lightened, rose with fearful velocity, and oscillated with such violence, that it was feared by the aeronauts it would turn over. The balloon rising in this rapid manner was impelled through the gas which was escaping, and the effect on the aeronauts was to deprive them of sight, and, for a short time, to threaten suffocation. Indeed, the circumstance acted in such a serious manner, that Mr. Green had not wholly recovered from the effects by yesterday afternoon. The parachute, as the public are already informed, fell in a field near Lee-green. Hardly had it reached the ground before numbers were on the spot ready to render assistance. The unfortunate gentleman was not quite dead, but in a very few minutes life was extinct. From his position, and the position of the basket, together with a strong indentation on one side of the basket, the general belief is that Mr. Cocking reached the ground in the basket; but as he touched the earth in a slanting direction, corroborated by the bruise on the basket, the shock threw him out, and occasioned the wound on the temple, which wound appears principally to have occasioned the speedy dissolution. The corpse was conveyed to the Tiger's Head, Lee-green, kept by T. Sears, and the parachute and appendages were likewise brought to the same place, and deposited in a room on the first floor. It is necessary here to take notice of a circumstance which has created universal disgust, and which has roused general indignation. On Tuesday morning several persons, whom the occurrence had attracted, applied to view the body and the parachute. Tickets were provided at the bar, a check-taker appointed, and the customary formalities of a Bartholomew-fair show were introduced by the persons connected with the public-house. The parachute was shown at 6d. per head, and the body of the unfortunate gentleman was also made a public spectacle of for an additional 6d. This disgusting proceeding would have continued for some time, had not the head gardener from Vauxhall-gardens, named Stevens, rode off to acquaint Mr. Gye with the occurrence.

The most disgraceful part of the exhibition—that of showing

the body for money—was, however, abandoned, but the sixpences were demanded for inspecting the parachute up to the time when the constable made his appearance with instructions from the proper authorities to take charge of all the materials until the inquest was terminated. This was a proceeding quite indispensable, for such was the indecent curiosity of those who came to the spectacle, that they carried off portions of the basket work, and, had not a stop been put to the depredations, there is reason to believe the whole would have speedily disappeared.

The balloon descended about nine o'clock, within a few miles of Maidstone. Mr. Green and Mr. Spenser alighted in perfect safety, and passed the night near the place where they descended. The melancholy fate of their companion did not reach them until yesterday morning, when they instantly set off for Lee-green, and there received a confirmation of the distressing event.

ADDITIONAL AND LATEST PARTICULARS.

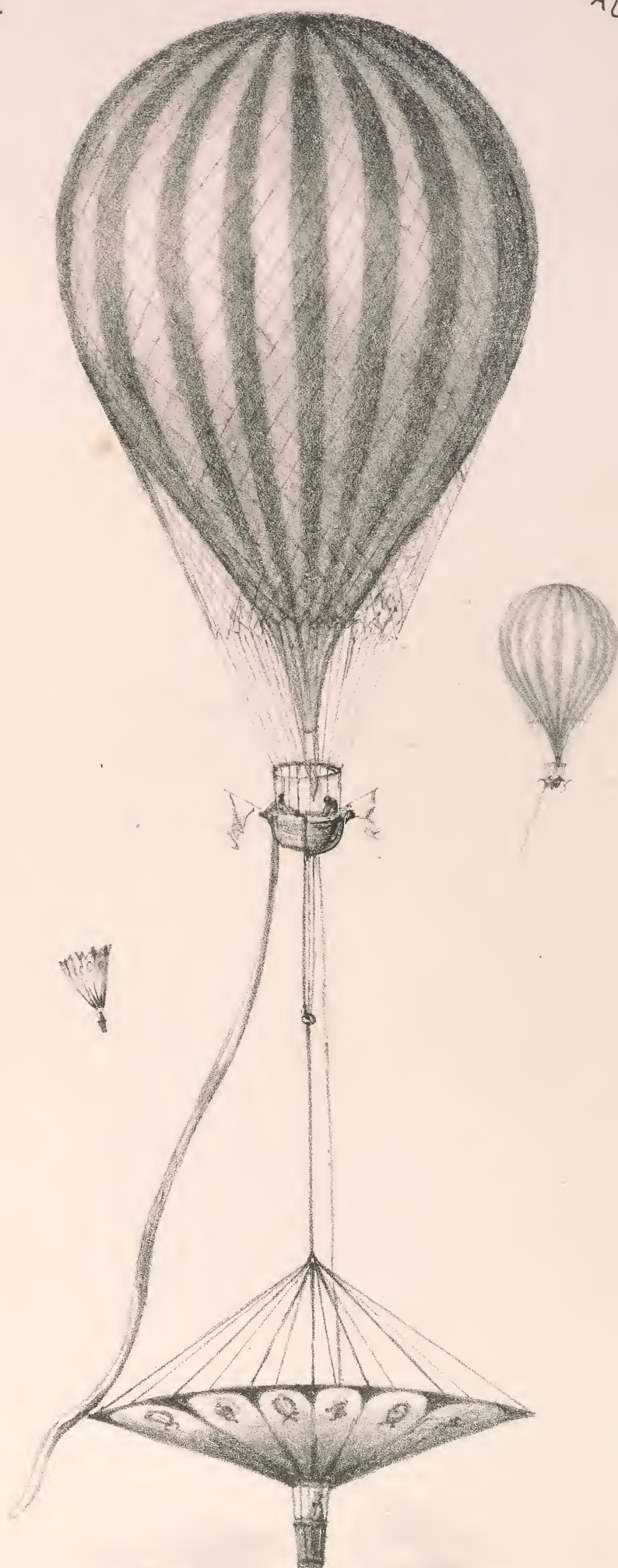
The death of the unfortunate Mr. Robert Cocking, under the appalling circumstances detailed in our journal, has created a deep and painful sympathy in the minds of the public. The catastrophe has happily not been extended to a further loss of life, as was fearfully anticipated on Monday night. After the parachute was divided from the car, the balloon rose rapidly, and gained an altitude of more than three miles. When about five miles on the other side of Maidstone, Mr. Green and his companion (Mr. Spenser) effected a safe descent. From the circumstance of the balloon entering some dense clouds immediately after the fastenings of the parachute were loosened, neither Mr. Green or his friend were able to make any observations as to the fatal consequences that ensued, and it was not until yesterday morning that intelligence reached them, through Mr. Charles Gye, of the dire calamity that had taken place, when they immediately started off for Lee, and arrived at the Tiger's Head inn about half-past ten o'clock yesterday afternoon. The statements which have appeared are in some respects incorrect. The ill-fated Mr. Cocking did not fall out of the basket attached to the parachute, but fell with the machine, and when first discovered was jammed in the basket, some of the wicker work being nearly forced through by, apparently, the knees of the sufferer. A number of eyes were on the balloon at the moment the division took place between it and the parachute, and it had not descended more than a few seconds, when so fearful an oscillation took place that the fatal result was fully anticipated. Before reaching the earth the parachute turned over several times with great rapidity. Those who were at the time noticing with what frightful velocity the machine came to the earth, were not aware that a fellow creature was about to undergo a dreadful death. Some labouring men in the employ of Mr. Norman first arrived on the spot, when the sad reality was apparent. The unfortunate gentleman was not quite dead; he opened his eyes and moved his lips, and having drawn a deep sigh, expired. His body was removed to the Tiger's Head inn, where several medical gentlemen attended, but all human aid was unavailing. The melancholy result of the experiment is satisfactorily attributed, by Mr. Green and other competent judges, to the deceased not having maintained an upright position in the basket, but leaning on the side, caused the lower part to be suddenly raised; by which the adventurous aeronaut lost his equilibrium, and the rapid oscillation immediately ensuing brought the machine, which weighed more than 500 lbs. with the most tremendous velocity to the earth. In the opinion of the surgeons, death was caused by the dreadful concussion the system met with. The greatest appearance of external violence is about the upper part of the head and chest. It is stated by Mr.

Green, that at the time the parachute was separated from the car, the altitude was about a mile; and from the time of the oscillation commencing, until the machine reached the earth not more than a minute could have elapsed. The parachute, the dimensions and construction of which have been described in the public journals more than once, now lies in a room at the inn. It is in a very mutilated condition, and Mr. Gye positively asserts that great portions of it have been taken away. This the above gentleman attributes to the public being allowed to inspect it; a charge of sixpence for the admission of each individual having been improperly made by the landlord of the house. The corpse of the ill-fated and lamented gentleman was also intended to be exhibited to public gaze, for the above-stated sum, but was prevented by some respectable influential individuals of the place. On the arrival of the two Mr. Gyes, they put a stop to any charge being made for the inspection of the parachute.

Mr. Cocking was in his 62d year. He was an artist by profession, and a gentleman of considerable scientific attainments. He had made several ascents with Mr. Green. He placed the greatest reliance upon the full success of the experiment, which has ended so disastrously. On the evening of the fatal ascent, he expressed the utmost confidence to his friends; and when it was suggested to him that it was not too late to retract, but give up the experiment, at least until a future day, he said he would not forego his intention for any consideration. Mr. Cocking has left a widow, but no family.

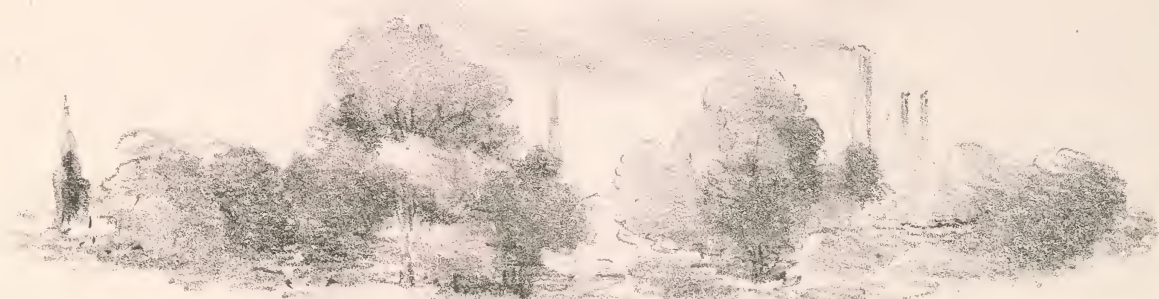
THE ONLY AUTHENTIC SKETCH OF THE ASCENT OF THE

VAUXHALL BALLOON WITH MR. COCKING'S PARACHUTE.



*Distance of the Car of the Balloon from the Parachute, 50 feet.
Diameter of the Parachute, 36 feet.*

The Streamer from the Balloon was a canvas tube for throwing out Ballast.



From drawings made during the preparations for the Ascent and at the time the Balloon rose from the Gardens

WITH A SKETCH OF THE FATAL DESCENT OF MR. COCKING.

London. Published by W. Spooner, 37 Strand.

DESCRIPTION OF THE PARACHUTE AND CAR, AND BRIEF ACCOUNT OF THE FATAL DESCENT OF MR. COCKING. BY AN EYE-WITNESS.

To accompany Spooner's Sketch of the Ascent of the Vauxhall Balloon, and Mr. Cocking's Parachute.

THE Parachute was thus constructed ;—Three hoops, the largest of which was 107 feet in circumference, were connected by ten light spars of wood, from the frame work of the machine. These were strengthened by a series of small lines stretching from the upper hoop to the lower; and the whole was covered by a fine cloth; the latter consisting of 22 gores, 59 inches at their greatest diameters, and gradually diminishing to 11 inches, which, when sewed together, formed a cone at an angle of 30 degrees.

The car was of wicker, and its attachment to the lower hoop resembled that of the car of a balloon, which always retains its perpendicular whatever movement there may take place in the machine above. A strong rope descended from the hoop underneath the car of the balloon, and passing through an iron ring on the top of the main centre cord of the parachute, ascended on the other side, to be made fast to the instrument commonly used by Mr. Green for liberating the balloon. From this a thin cord hung down to the car of the parachute, and thus gave Mr. Cocking the opportunity of making the separation at any moment he may have deemed favourable. The surface exposed to the action of the air was 124 square yards, and the weight of the apparatus 223 lbs. This, added to Mr. Cocking's weight, viz. 170 lbs. gives the total of 393 lbs. without ballast, which is said to have increased the total to 560 lbs. The vast balloon was inflated by five o'clock, soon after which Mr. Green prepared to connect with it the parachute, by allowing the balloon first to ascend a short distance, and then bringing the parachute beneath it. After much difficulty, this was effected by a rope as before described, and Mr. Cocking placed himself in the car or basket of the parachute, the distance between which, and the car of the balloon, in which were Mr. Green and a Mr. Spencer, being about 50 feet. At 20 minutes before 8 o'clock having shaken hands with many of his friends, the balloon and the attached parachute ascended majestically from the earth. Nothing could be finer than the ascent. As the aeronauts rose, the transparency of the outspread parachute, with its tasteful embellishments, was extremely beautiful.

The disastrous conclusion of the experiment is thus described by an eye-witness of the descent ;—

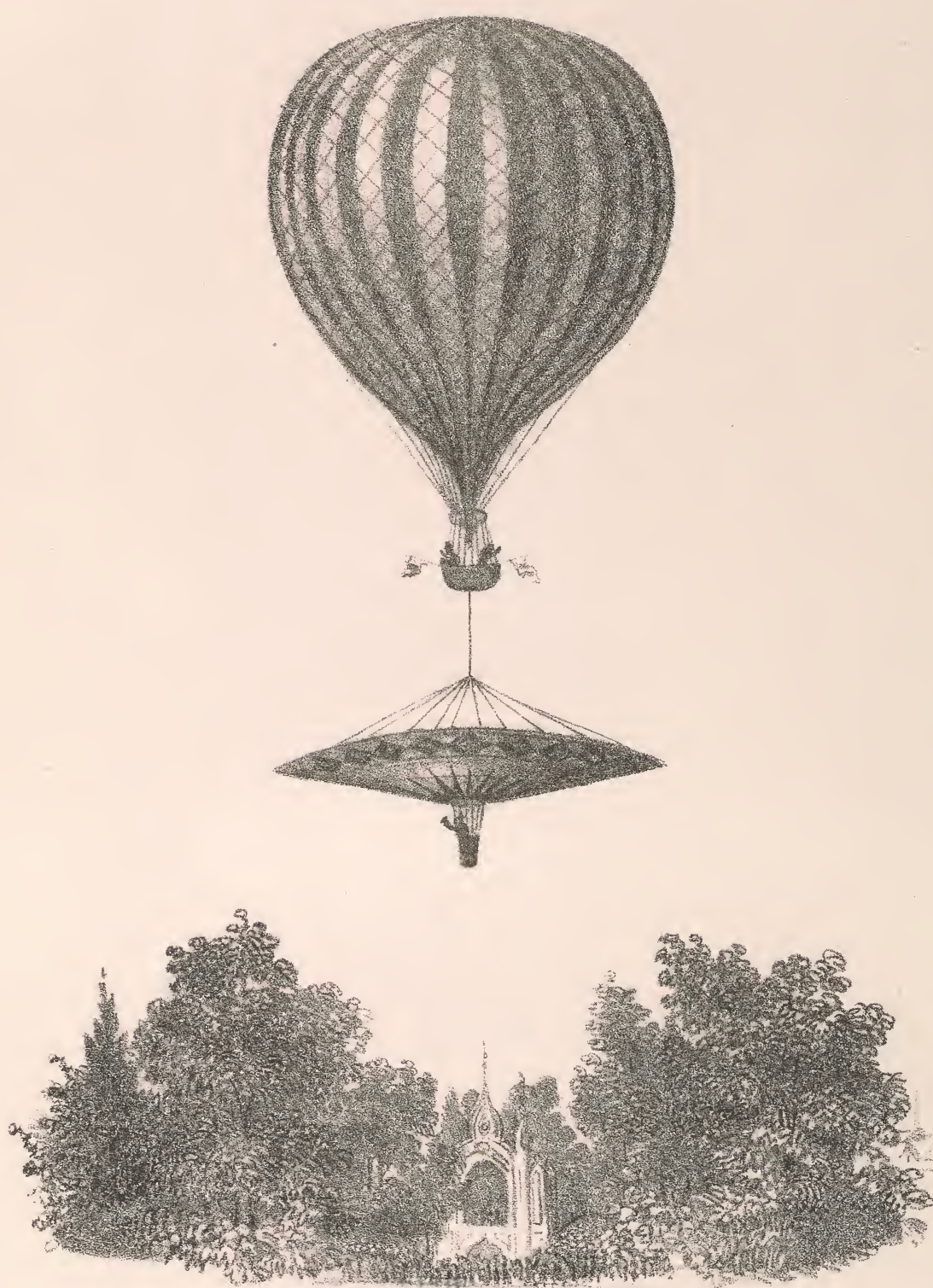
"I was looking at the balloon with the parachute, as they drifted steadily before a gentle wind. In an instant afterwards, I observed the balloon shooting upwards with great velocity, and the parachute, which had been suddenly separated from it, falling with great rapidity. I lost sight of the balloon, and my eye was fixed on the parachute.

"For a few moments the parachute descended so beautifully, and preserved its position so steadily, notwithstanding its fearful motion, that I thought it would reach the ground in safety.

"To my eye it had a round flattish shape, and at this moment it seemed to lean a little to one side; it was not horizontal. It remained for a moment or two in this position. All the while it was descending rapidly.

"It then fell, as it were, to the opposite side, but with a quicker motion than when it first lost its horizontal position. It now oscillated several times quickly. A sort of flapping motion was then perceptible, and the parachute appeared lessened in diameter. It then apparently turned over, and, to me and some others standing near, it disappeared for the twinkling of an eye, and in the succeeding instant it was seen to have changed its flattish circular form to that of a long body like an umbrella partially opened, or more correctly, perhaps, to a balloon very much collapsed and descending with a great velocity. Some trees intervening prevented my further observation.

"I made my way through the fields in the direction in which I had seen it falling, and as I reached a spot at a little distance from where it fell, I saw the lifeless body of the unfortunate gentleman placed on a hurdle to be conveyed by some farm labourers to an inn at Lee."

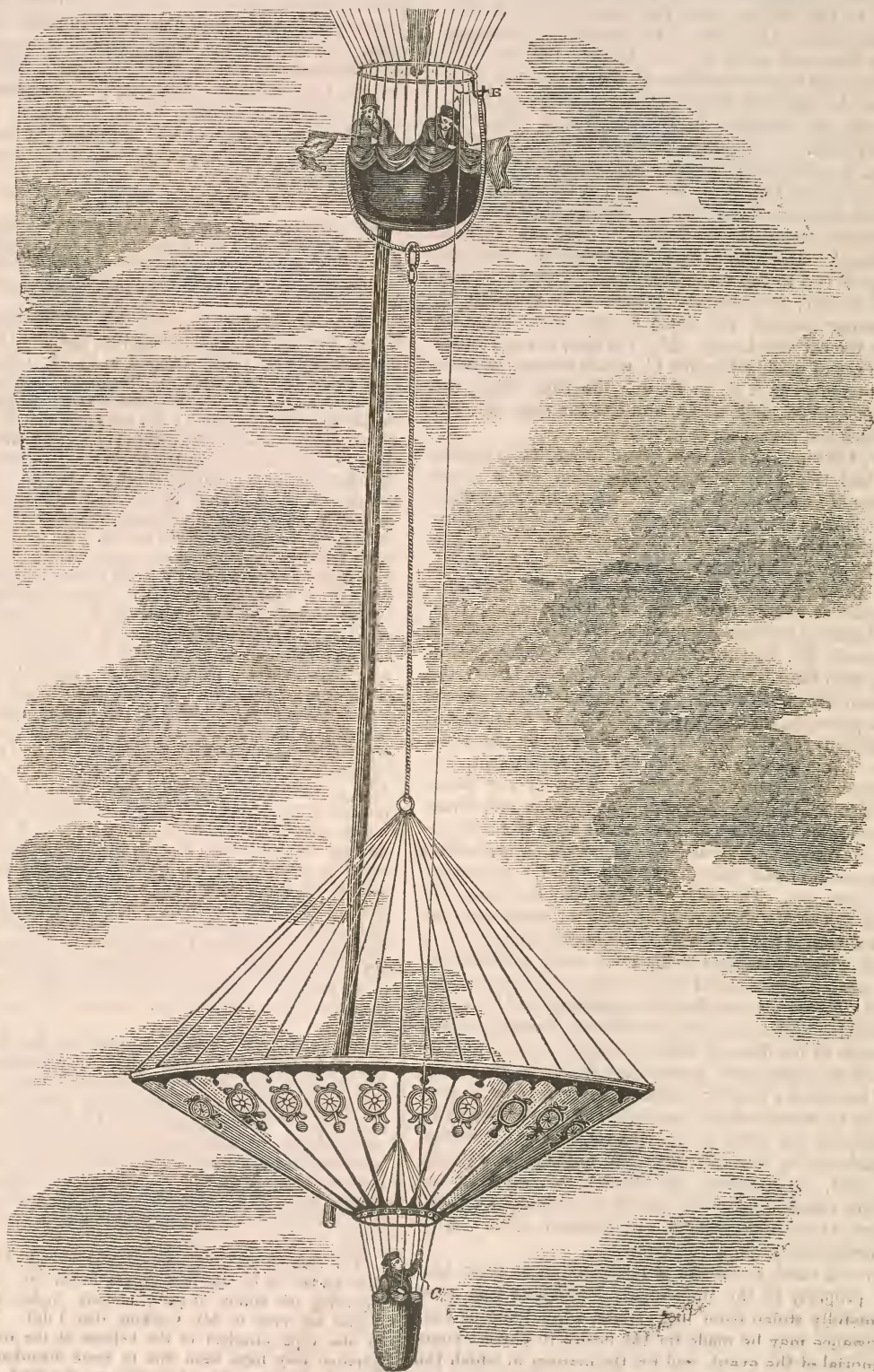


*Presented with N^o 6. of the **WONDER**, July 29th 1837.*

THE CASKET

Of Literature, Science, and Entertainment.

CORRECT ENGRAVING OF MR. COCKING'S PARACHUTE:
SHOWING THE MODE OF ITS ATTACHMENT TO THE BALLOON, AND THE ACTION OF
THE APPARATUS BY WHICH HE RELEASED HIMSELF,
(Drawn from Actual Admeasurement for the use of the Coroner's Inquest, and engraved by permission, exclusively for this work.)



No. 31.—Aug. 5, 1837.

Price Twopence.

MR. COCKING'S PARACHUTE DESCENT.

As the unhappy termination of this worthy and lamented gentleman's experiment continues to engross public attention, and all information on the subject is still sought with avidity, we again draw on our peculiar resources, through which we are enabled to publish an engraving explaining, on a sufficiently large scale, the machinery by which the Parachute was attached to the balloon, and the mode in which Mr. Cocking detached himself. Our engraving is a copy of the drawings made by Mr. Cocks, the artist of Vauxhall, for the information of the Coroner's jury, and may be therefore fully relied on as correct in every particular, the whole being on a scale from actual admeasurement. A double rope, fixed to one side of the balloon, passed under the car, and reached the catch, or trigger, marked A B, on which it hung in a loop. C marks the end of the liberating line in Mr. Cocking's car, which reaches thence to the trigger, to which it is fastened. D shows a rope, suspended by a ring at the upper end to the ropes already described as passing round the car, to which the parachute is attached by its passing through the dome to the lower hoop, on which the car was hung. Mr. Cocking is represented in the act of pulling the line C, which causes the latch of the trigger, at A B, to fly up; the rope round the car consequently falls down, and lets the ring slide off, by which the parachute is liberated.

Mr. Cocking, as has been stated in the public papers, had had this project in contemplation for a great number of years, and it is only due to his reputation as a scientific man to mention that the theory has been tested in various ways both by himself and Mr. Green, and the result has always been favourable to Mr. Cocking's principle, in preference to that of Garnerin. As many as twenty-five years ago, about which time Mr. Cocking lectured on aerostation at the theatre of his friend, Mr. Tatham, in Dorset-street, these gentlemen, with the co-operation of Mr. Charles Green, the eminent aeronaut, constructed two parachutes—one on each principle, and a paper balloon, of considerable dimensions for the purpose of giving them an equal trial. At the time fixed on for the experiment, circumstances prevented Mr. Green being of the party, but Messrs. Cocking and Tatham—who is still living—proceeded together, at a very early hour of the morning, to Hampstead Heath, carrying with them, besides the parachute and balloon, the materials for generating hydrogen gas. The balloon being inflated, a stick was fixed across the bottom of it, and at each end was affixed one of the parachutes, suspended by a piece of touch-paper, calculated to burn for equal periods, and the whole was launched into the air, and acted as desired. The result was that the parachute on Garnerin's principle exhibited all the oscillations found so objectionable at his descent, while Cocking's was altogether free from them, came much more slowly to the earth, and travelled a greater distance in its descent. It is not to be wondered at, therefore, that he gathered confidence in the truth of his theory. It is, however, considered by scientific men that, although the theory is good, in practice, the increase of strength and weight required are so far out of proportion to the increase of capacity, that a safe descent never can be accomplished in such a machine.

It will shock every one of right feeling to hear, that the property of the unfortunate gentleman was most shamefully stolen from his person, while lying at Lee. Allowance may be made for the desire to possess some memorial of the event, and for the manner in which the parachute accordingly vanished piecemeal; but what

must be thought of those who could aggravate the woes of a destitute widow by stealing his purse—his watch—his snuff-box—his eye-glass—even his shoes, the buttons from his dress, his cap, and every detachable part of his apparel. We are happy, however, to find that there are benevolent individuals actively exerting themselves for Mr. Cocking's accomplished and amiable widow. Mr. Durrant, the eminent stock-broker, has become the treasurer of a voluntary contribution on her behalf; and Mr. Green has most liberally offered to make an ascent in the large balloon gratuitously, on the Vauxhall proprietors giving the use of the gardens, and the Gas Company supplying the gas gratuitously.

The following letters, from gentlemen of great scientific attainments, have appeared in the public papers since our last, and will no doubt be read with considerable interest.

From Mr. Faraday.

Sir,—Though very unwilling to appear in the public journals or intrude on your kindness, I am induced, by what appears to me an unnecessary reference to my name in the late inquest, to ask of you the favour of publication for the present letter.

I knew Mr. Cocking long ago, was a fellow member with him at the City Philosophical Society, and heard him deliver the lecture 23 years since referred to by Mr. Gye at the inquest; and the recollection of his companionship, abilities, and kindness at that time, adds greatly to my feelings of sorrow for his melancholy death. I did not know that he thought of putting his parachute to the proof by a descent until I saw his intention announced in the papers, and did not see him or the parachute until the day of the descent. He then asked me at the gardens my opinion of its safety, and I said that, as to its capability of retarding his descent, it was purely a matter of calculation into which I could not go. He said that he had made both experiments and calculations, and was fully assured the velocity of descent would not be greater than that of a man falling from a height of two feet. I then remarked upon the weakness of the construction, especially of the upper ring, and asked why he had not given it a form better able to resist collapse? Why it was not assisted by stretchers or bracings, &c.? He gave me the same answer generally that he had given to Mr. Gye, that it was strong enough, and that he objected to more weight above. I made other objections, as for instance, to the opening in the middle of the parachute, the place of the centre of gravity, &c., but finding him perfectly satisfied with his preparations, and resolved to ascend (as is fully proved by the evidence on the inquest), finding, also, by the care of Mr. Gye that every precaution was taken to enable him to abandon his intention at any moment, I desisted from making further remarks, which might tend to disturb his presence of mind, though they would not have prevented his ascent. I, however, said not a word to him to advance his going; but, being doubtful and anxious, had expressed myself so to some on the ground, and amongst others to Mr. Green, who asking me whether I would rather be in his or Mr. Cocking's situation, I said in his; and this he told to Mr. Cocking in my hearing. With these feelings on my mind I retired in part, and did not speak to Mr. Cocking for the last hour and a half.

Hearing that Mr. Mason was disturbing Mr. Cocking's attention, I did venture to say to the former gentleman, that as Mr. Cocking was resolved to ascend, I thought it unwise. Mr. Mason told me that he had made calculations, the result of which was, that the descent would be a very rapid one. I observed that Mr. Cocking had also told me he had made experiments and calculations, the results of which were, that the descent would be slow. Mr. Mason's calculations and objections, as far as I know, had no relation to the strength of the parachute, or to the actual cause of the failure and sad result.

The opinion given by Mr. Green and Mr. Gye (who appear to me to be the best judges under the circumstances) regarding the failure of the parachute, makes me glad that I said no more to Mr. Cocking than I did. The retention of the rope attached to the balloon at the moment of separation may have been due to some disturbance of mind through anxiety, thus bringing on the fatal termination;

and I am very thankful that I, at least, was not the cause of any such anxiety.

In conclusion, my sincere thanks are due to the coroner for his kindness and consideration. It is much to be desired, though perhaps not to be expected, that others would more frequently have the same thought.

I am, sir, your obliged servant,
Royal Institution, July 31. M. FARADAY.

From Mr. Ottley.

Sir,—Being at all times unwilling to have my sentiments and opinions misrepresented, but more especially so in your paper, which deservedly commands so much more public confidence than any other, I am induced to trouble you with a few lines respecting the evidence I gave at the inquest on the body of Mr. Cocking.

If the object of the remarks I then made had been merely the value of a few philosophical truths, or the interest they might have in a scientific point of view, I should not have troubled you with the present communication.

My object, however, was of far greater public importance than this. There appears to have been an opinion entertained by many of those present, and which was insisted upon by some with a degree of zeal scarcely to be accounted for, that had the parachute of Mr. Cocking been strong enough to resist fracture, the result of the experiment would have been successful.

My calculations were made with a view to show that this could not have been the case, in consequence of the little resistance afforded by the air to a convex parachute. The results of these calculations I stated to the court, because I thought it of the greatest importance to deter the adventurous from attempting the formation and use of other parachutes on the principle of that of Mr. Cocking, and trusting to them in the idea that, having given them more strength, they might depend upon their safety. In my evidence I stated that my attention had been drawn to the subject by the novelty and notoriety of the intended experiment, and that I had made calculations comparing the relative powers of convex and concave parachutes previous to the experiment in question; and I showed that from those calculations it followed that a fatal result might be considered as the natural consequence of the structure of the machine, independently of its accidental fracture in the descent.

The fact is, that from the inherent defects in the nature of the structure, any attempt to increase the strength and size of such a machine must increase its weight in a still greater proportion, and, consequently, it must still remain inefficient.

On the other hand, in the concave parachute, the surface, and consequently the resistance and efficiency, may be increased to any extent, without augmenting the weight in a greater degree, and therefore the power of such a parachute may be increased almost without limit, setting aside the inconvenience of managing one of extremely large dimensions.

Although these calculations are not of a very abstruse character, and may be performed by all persons competent in mechanical and pneumatical science, the results are such as could never be arrived at without the aid of such calculations; and consequently, as I have said above, I consider the promulgation of them at the present moment to be important, inasmuch as it may prevent more lives being lost in experiments, which, from the necessity of failure attendant upon them, can scarcely merit the name.

I am, Sir, your obedient servant,
WILLIAM CAMPBELL OTTLEY, M.A.,
Fellow of Caius College, Cambridge.

Calculations from the Railway Magazine.

The unfortunate experiment of Mr. Cocking, in his descent on the 24th ult., with the parachute, has excited so painful a feeling in the public mind, that we shall be excused for saying a few words on the subject. It appears that Mr. Cocking's apparatus was an inverted frustrum of a cone, 34 feet diameter at the top, and three or four at the bottom, which was open. We are informed the upper ring was a tin tube, about two inches' diameter, and the lower a wooden hoop; the superficies of the cone was strong linen or canvass, and the whole, with the basket in which he was, weighed about 150lb. He took up, we are informed, 2cwt. of ballast, making, with himself, a total of about 5cwt. We know not the proportion of the axis

of the frustrum to either diameter of the cone; but supposing the parachute a flat circle, which would have been a better form for resistance, of the 34 feet diameter, it would expose a resisting area of little better than 900 square feet. With these dimensions the mass would have descended with a velocity of near 13 miles an hour—three times greater than safety would permit; but from the bad formation of the machine, and the great hole in the middle, the resistance must have been less, and the velocity greater. Could he have rid himself of the 2cwt of ballast, he must have descended more than 10 miles an hour—that is, near three times as fast as he ought. In every way it was an ill-contrived, ill-judged experiment; the tube was too weak, and, we are informed, it came unsoldered the day before he went up. To descend with a velocity of five miles an hour, rather too much for perfect safety, requires a resisting area of 1,000 square feet for every 100lb.; Cocking's had only 900 for more than five times the weight. His distance was nearly 60 feet from Mr. Green, too much for easy communication.

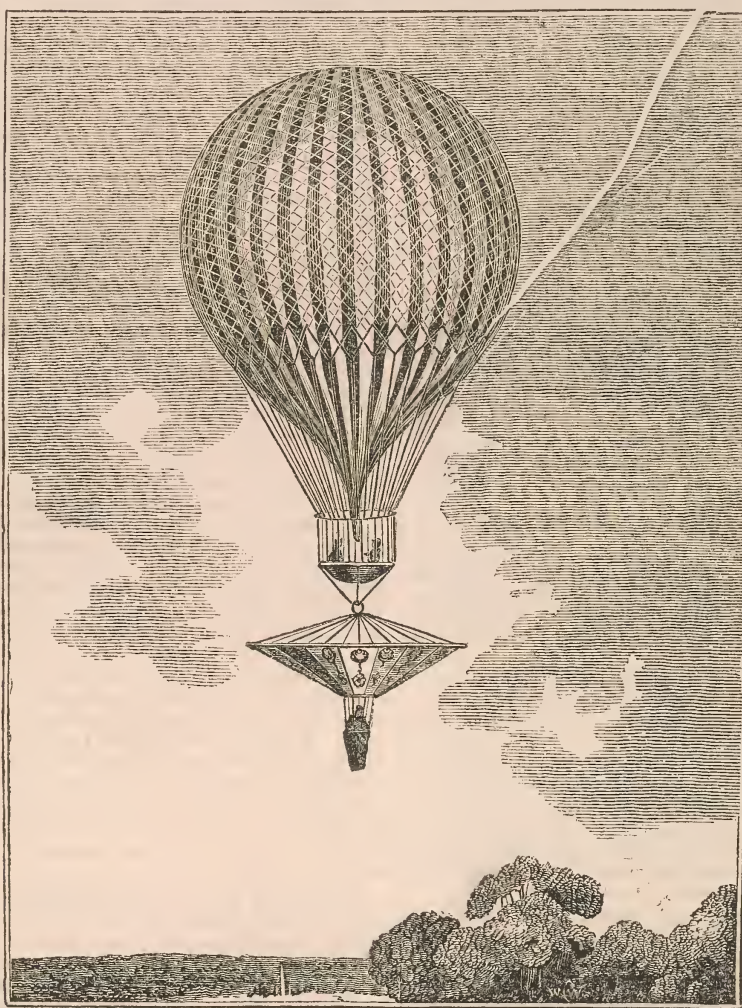
It has been stated, that several scientific men had approved of calculations of the safety of Mr. Cocking's parachute. We can hardly believe it; we ourselves, at 4 o'clock, gave our opinion against it to friends who asked us. From the height, 5,000 feet, stated by Mr. Green, and the time of descent, 70 seconds, or more, observed by Mr. Bishop, we perceive that our computation of the maximum velocity, 13 miles an hour, would have been very near the truth, had the parachute not have collapsed.

THE CASKET
Of Literature, Science, and Entertainment.

THE VAUXHALL BALLOON AND PARACHUTE.

(As they appeared at the Time of Ascending.)

FROM DRAWINGS AND SKETCHES FURNISHED EXCLUSIVELY TO THIS WORK BY THE LATE
LAMENTED MR. COCKING.



THE BALLOON AND PARACHUTE ASCENT, WITH
FULL PARTICULARS OF THE FATAL RESULT
OF THE DESCENT, WRITTEN EXCLUSIVELY
FOR THIS WORK BY AN EYE-WITNESS.

TO WHICH IS ADDED

MR. GREEN'S ACCOUNT OF THE VOYAGE.

PARACHUTES were first constructed and appended to a balloon by Mr. Blanchard, with the view that, in the event of an accident to the balloon itself, the parachute might present a means of escape from any serious consequences which thereupon might threaten. During one of Blanchard's aerial voyages in 1785, upon which occasion he 'set gas' from Lisle, whence he sailed along for three hundred miles in the 'boundless skies,' without a single halt, he let down a dog when at a great height, in a basket attached to the parachute. The canine 'descendant' fell gently through the air, until he effected a safe landing on *terra firma*, without even the

slightest bruise. After that period other aeronauts brought the system more into operation, and M. Garnerin, in his own country, repeatedly descended from a considerable altitude by means of a parachute. In the year 1802 this adventurous Frenchman came over to England and made two fine ascents in a balloon; on the second occasion having announced it to be his intention to return to the earth in a parachute, leaving his balloon to go whither the winds might waft it. The ascent was singularly grand; and at a moment when the eyes of countless spectators were fixed upon his movements, and he was at an amazing elevation, he disengaged himself from his buoyant power and commenced a rapid descent. For several seconds the machine came down with an accelerating velocity frightful to behold, and but one feeling pervaded the breasts of those who were anxiously watching its progress: That feeling was one of apprehension, reduced to almost a certainty, that the subject of their solicitude must of necessity be dashed to atoms. The parachute tossed first on one side, then on the other; ever and anon making such wide oscillations as that

No. 30.—July 30, 1837.

Price Twopence.

the car, in which sat the aeronaut, was placed in an horizontal line with the parachute portion of the apparatus. At length, after passing in this appalling manner over Marylebone and Somers-town, the parachute reached the ground in a field in St. Pancras. Thousands rushed to the spot, where they discovered poor Garnerin lying on his face, in which position he had been thrown by the violence of the shock. On a close examination it was discovered that several cuts were the extent of the injury he had sustained, from which blood flowed in copious streams. He appeared to be greatly agitated on regaining his senses. The circumstance of his having already made several successful descents of course led to the supposition that all was not as it should be with the parachute, and so it turned out. Upon its undergoing a thorough examination, one of the principal strings was found either to have been broken, or to have in some way become perfectly useless. The shape of this parachute was that of the ordinary umbrella. We believe this is the only instance of the descent of a human being by a parachute in this country, previously to the calamitous one we have to describe; and then, as was the case in the previous descents on the continent, the balloon in which the ascent was effected, was, on the parachute being liberated from it, left to 'range its distance.' Consequently, the balloon was manufactured of cheap materials for the occasion.

Mr. Cocking, who was a gentleman of considerable scientific attainments, and dedicated a large portion of his leisure to the study of aerostation, connected with which subject his collection of drawings, engravings, models, &c. is most interesting, and perfectly unique, happened to be among those who beheld Garnerin's descent. A casual inspection of the parachute at once showed to Mr. Cocking that, so long as the expansion was to be dependent on the chance of inflation from below, there must necessarily be a risk of its upsetting, and further, that in the event of either of the cords snapping or becoming entangled, the probability would be strongly in favour of a powerful oscillating motion, and a rapid and dangerous descent the result.

The consequence was, that when Mr. Cocking determined on using a parachute, he gave a preference to the principle of the one that has turned out so disastrously, which, although generally supposed to be altogether a novelty, was well known to the scientific world, although, on account of certain presumed inherent deficiencies, the practical cultivators of the art did not choose to use it.

It was first promulgated in Paris about forty years ago, revived in England by Sir George Cayley, and published by him, with other notices on aerostation, in (we believe) the twenty-fourth volume of Nicholson's Journal. It was subsequently more fully developed and improved upon by Mr. Kerr, by whom it was, in several experiments, publicly illustrated. Its principle consists in an inversion of the preceding ones, in which the surface of least resistance is made to descend foremost. The shape is that of a flattened cone, to the apex of which is attached the car of the adventurer. The chief object of this arrangement is to effect the correction of the oscillatory motion, which to a violent extent usually accompanies the descent, and the insurance of the speedy action of the machine after its detachment. As, however, the principle adopted by Mr. Cocking, and Garnerin's, are both fully explained by a scientific correspondent in No. 26 of The Casket, in an article which we have illustrated with engravings of each plan, we need do no more here than refer our readers to that article.

It is due to Mr. Monek Mason, who was one of Mr. Holland's guests in his great continental balloon excursion, and who has published several papers on the subject of ballooning, to state that he entertained little faith in the plan adopted by Mr. Cocking, and conveyed his opinions on the subject to the editors of some of the daily journals, on the day previous to the experiment.

Mr. Mason (and facts now seen to justify his conclusion) considers the oscillations not in any way connected with the form of the parachute. He treats them as the consequence of a first irregularity, impressed upon it by the unequal extension of its parts in the act of opening. As a proof that the aberrations in question are entirely independent of the form of the parachute, or indeed of any other permanent condition of the descent, he observes that the aberrations themselves are by no means permanently or invariably present, at times being much more strongly displayed than at others, occasionally wanting altogether, and almost always becoming fainter as the experiment draws to a close.

Mr. Mason, however, saw a much greater objection to the scheme than its mere inadequacy to the saving of the oscillation, in the great sacrifice which it occasions in the resisting powers of the parachute, 'to an extent, indeed, which (we now quote from Mr. Mason) gives us reason to entertain much apprehension concerning the issue of the experiment by which it is now about to be illustrated. By a course of calculations, unnecessary to be inserted here, we learn that the resistance exerted upon the base of a cone in passing through the air (supposing it a plane) is to that upon its oblique presentation in the proportion of unity to the sine of half the vertical angle. Supposing the apex of the cone, in the present instance, to be a right angle (from which, we believe, it is a little removed), this proportion would stand in numbers, "as one is to one divided by the square root of two" (algebraic expressions *a vetitum nefas* in the public prints); consequently, the loss of resistance occasioned by presenting such a cone point foremost, is equal to one-third of what it would have been had the base been so disposed as to encounter the action of the air. Owing to this circumstance, the power of the projected parachute, assuming its radius to be 17 feet, would only avail to retard the fall of the individual in the same degree as an ordinary parachute whose radius was 14 feet. Now, the descending velocity of such a parachute, charged with a weight of 484 pounds (that of the whole apparatus, including the aeronaut himself, his ballast, and other equipments), we ascertain from Dr. Hutton's theorem, would be exactly 20½ feet per second, and the force developed, the same as if the individual had fallen unprotectedly from an altitude of six feet and a half; very nearly twice as much as in these cases is generally considered to be the *acme* of human bearing.'

Whether the loss of Mr. Cocking is the result of the accuracy of the above theory, and his ignorance of it, or of the insufficient strength of his machine, is a point that may now perhaps never be determined. But we were present during the whole of the preparations to the time of the ascent, and certainly had a strong feeling of the fragileness of the machine. We know that the upper hoop, from which the canvass depended, and on which the great strain must have been, was first made of copper, which utterly collapsed on its strength being tested; and, although the hoop of block tin, which was afterwards substituted, stood the tests that had been too much for the copper one, we are fully prepared for hearing that the pressure of the air, combined with the weight of the parachute and its contents, exceeded anything that had been calculated on, and operated in the same way on the tin as the pressure of weight alone had previously done on the copper hoop. It was suggested to Mr. Cocking to have a hoop of ash-wood, the material used for the hoops of balloons, but he declined it, on account of its increased weight. We may as well observe in this place that he had tried experimental descents with a model from the Monument, which had been so perfectly satisfactory, that he never wavered in his confidence of success.

Mr. Cocking had for years contemplated a descent with a parachute, but till the building of the great Vauxhall balloon by Mr. Charles Green, there was neither a machine of sufficient capabilities as regards power to carry up so large an additional weight, nor an aeronaut who was inclined to hazard the experiment of so suddenly releasing his balloon from a burden amounting to nearly 500 lbs. The consequence of the instantaneous removal of so large a weight may in some degree be imagined upon its being stated that it is no uncommon thing for the balloon, when a few handfuls of sand are thrown over, to obtain an additional elevation of 300 or 400 feet, and instances have occurred when, on two or three bags of 11 lbs. each being emptied of their contents, the machine has shot up from 800 to 1,200 feet.

The progress of the united machines was watched therefore with a double interest on this occasion. The main difficulty Mr. Green anticipated was that of breathing immediately after the severance of the balloon and parachute; because then, in order to counteract the immense rising power the balloon would acquire on being relieved of the parachute, he would be obliged to throw open the escape valve as widely as possible, which would have the effect of bringing him and his companion into an atmosphere of gas, as the balloon would continue to rise faster than the gas would disperse. To meet this difficulty, he took with him a silk bag filled with common air, having two mouth-pieces, one to be used by himself and

the other by his companion, while passing through the contaminated atmosphere.

Mr. Cocking's parachute presented the figure of an inverted cone, being 107 feet in circumference, and 34 feet in diameter. The frame-work consisted of three circles of tubes, the upper one, as already stated, being made of block tin, the others of thin copper. These were fastened together by rods acting somewhat like the whalebones of an umbrella distended. The framework thus formed was covered with gores of stout fine linen, 21 in number, and 15 feet in length. A series of small cords from the upper circle of tubes was fastened to the bottom of the balloon, which, meeting at the bottom, were attached to a wicker-basket large enough to hold one person only. This basket was covered with decorative drapery, and a bag full of inflated bladders was affixed to the bottom, in order to break the fall of the aeronaut. The whole outside of the parachute was varnished and most tastefully painted by Mr. Cocks, the scenic artist of Vauxhall, with bold wreaths of laurel and oak-leaves, and alternate bunches of the rose, thistle, and shamrock. An opinion prevailed that Mr. Green was to cut the parachute from the balloon, and, indeed, the Vauxhall proprietors so advertised; but Mr. Green, with perfect propriety, declined doing so. He willingly undertook to carry Mr. Cocking and his parachute up, but considering the experiment a hazardous one, he declared that the whole responsibility of it must rest on its projector, in which Mr. Cocking heartily coincided. In consequence, a rope was adjusted from the parachute through a ring at the bottom of the balloon to the trigger used by Mr. Green for liberating his balloon from the restraining ropes, by pulling which Mr. Cocking was enabled to descend at his own time.

We shall now copy the account of the ascent from the *Times* newspaper, which we find to be as accurate as any, and as we cannot, of course, personally guarantee any of the various accounts of the melancholy termination of the adventure, we will give them all, as far as they contradict each other, that our readers may have all the information we can collect on this painfully interesting subject; previous to doing which, the writer may be pardoned for stating that he was on terms of intimacy with all the three parties to this experiment, and that he shook hands with Mr. Cocking, on his taking his place in his little car, not with much apprehension, certainly, for he thought all the arrangements had been too well considered to be likely to miscarry, but with a deep anxiety for the gentleman now unhappily no more, participated in, in a degree, doubtless, by all who beheld his unostentatious firmness, but sure to be felt, to a painful extent, by those who, like himself, had often experienced the benefit of his courteous conduct and unaffected kindness of heart, and had met him in his domestic circle, where his virtues as a man and a husband commanded the devoted affection of his family and the respect of all who knew him.

(From the *Times*.)

We regret to have to state that the experiment of the descent of the parachute has terminated fatally to Mr. Cocking. In consequence of the announcement that he was to ascend in his parachute suspended to the great Nassau Balloon, a great number of persons, amongst whom were many of the first nobility of the country, assembled in the gardens to witness the experiment. Without the gardens, upon Vauxhall-bridge, and upon Millbank, the crowd was immense. The shape, dimensions, and construction of the parachute have been already described; it may therefore be sufficient to say, that it was in shape an inverted cone, not very unlike an umbrella turned upside down. It was in circumference 107 feet four inches. From the bottom of this machine, which was constructed of fine Irish linen, a basket of wicker was suspended, in which Mr. Cocking placed himself. The distance between this basket and the car, in which were Mr. Green and Mr. Spencer, was between forty and fifty feet. The ascent of the balloon took place about twenty minutes before eight o'clock. When Mr. Cocking entered the basket of the parachute he was perfectly collected, and exhibited no appearance of want of nerve, or indecision.

Mr. F. Gye, who was particularly anxious in his attention to all the arrangements of the experiment, and who is entitled to every praise for the manner in which he exerted himself to prevent the possibility of accident, continually in the course of the day, and up to the very moment of the ascent of the balloon, advised Mr. Cocking, if he felt the least timidity, to relinquish his attempt, and undertook to allay any ill-feeling that might

arise amongst the public at the disappointment. Mr. Cocking, however, professed himself most anxious to carry his announcement into execution; and after thanking Mr. F. Gye for his kindness and solicitude, professed himself most eager to ascend. At twenty minutes to eight o'clock, every thing being in readiness and the parachute attached to the car of the balloon, the ascent took place. Nothing could be more majestic. The weight and great extent of the parachute apparently rendered the motion of the balloon more steady than on any former ascent, and the almost total absence of wind assisted in keeping the balloon in a perpendicular position. There was not the slightest oscillation; the balloon and parachute sailed through the air with a grandeur which exceeded anything of the kind ever before witnessed, and continued in sight for about ten minutes. A good deal of ballast was discharged almost immediately over the enclosure, after which the huge machine rose rapidly, but not so suddenly as to break the even current of its course. It was expected by those in the gardens that Mr. Cocking would have descended so near Vauxhall as to have afforded them a view of his descent. This was not the case. He was lost in the clouds, and the company were for some time left in conjecture, but certainly not in anticipation of the result of the experiment. A son of Mr. Gye was the first person who announced to our informant the fatal catastrophe. This gentleman followed on horseback, and arrived in a field, near Lee, in Kent, just in time to learn that the parachute had descended with such violence that Mr. Cocking had lost his life in his experiment. The intelligence was not suffered to transpire for some time, in hopes that the account might be incorrect, and that Mr. Cocking might have only been stunned, or have fainted, it being remembered that something of this sort occurred on the descent of M. Garnerin some years ago. It was, however, very shortly ascertained that the intelligence was too true. It appears that the descent of the parachute was made over a field close to Lee, that on approaching the ground the parachute, from some cause or other, most probably from the hoop which distended the external circumference being composed of a hollow tube of tin having collapsed, and consequently opposed no resistance whatever to the atmosphere, but turned over and over in the air, and came down with a frightful velocity. Mr. Cocking was not, as we are informed at present, thrown out of the basket, but he received a dreadful wound on the right temple, and had his ankle dislocated. He moved his hand once after his fall, but exhibited no other signs of life. Several country people, who were close by, procured a wattled hurdle, placed him upon it, and conveyed him without delay to the Tiger's Head Inn, at Lee. He was immediately attended by Dr. Chowne, who was on the spot; but all medical assistance was unavailable. The arteries of his arms were opened, but it was to no purpose, life had fled. It is but justice to say, that this fatal result is attributable in no manner to any person connected with Vauxhall or the balloon.

(From a Correspondent.)

LEE, 10 O'CLOCK, MONDAY EVENING.

As much public anxiety must be produced by the deplorable accident which happened near this place an hour or two ago, I beg leave to state a few particulars which I witnessed concerning it.

I was looking at the balloon with the parachute as it drifted steadily before a gentle wind and rose very slowly. After it was first pointed out to me, the parachute seemed to float without oscillation, and to hang perpendicularly under the balloon. Shortly afterwards the balloon itself was slightly agitated, and was inclined considerably more to one side than when I first saw it, and the parachute did not appear to hang so perpendicularly as at first. While I was referring this to the balloon rising perhaps into a stratum of air with a somewhat greater velocity than the one it was leaving, the balloon and parachute adjusted themselves into their first position, and floated with as steady and as gentle a motion as before.

In an instant afterwards, I observed the balloon shooting upwards with great velocity, and the parachute, which had been suddenly separated from it, falling with great rapidity. I lost sight of the balloon, and my eye was fixed on the parachute. Knowing the use and object of a parachute, I was struck with the great velocity of its descent, from the instant of its liberation.

The sky was serene; the beams of the setting sun fell on the parachute, and every part was distinctly visible; the breeze in the region in which it was descending was so gentle as scarcely to exert any perceptible influence in turning it from its perpendicular direction, and where I stood, perhaps about 600 yards from where it alighted, the air did not move the leaves of an elm-tree. For a few moments the parachute descended so beautifully, and preserved its position so steadily, notwithstanding its fearful motion, that I thought it would reach the ground in safety, and I felt relieved from an intense momentary excitement, from an apprehension flashing across my mind that perhaps some human being was periling life itself in the experiment.

Being ignorant of the *real* form of the parachute, I speak of it as it appeared from a distance. To my eye it had a round flattish shape, and at this moment it seemed to lean a little to one side; it was not horizontal. It remained for a moment or two in this position. All the while it was descending rapidly.

It then fell, as it were, to the opposite side, but with a quicker motion than when it first lost its horizontal position. It now oscillated several times quickly. A sort of flapping motion was then perceptible, and the parachute appeared lessened in diameter. It then apparently turned over, and at this moment something fell out of it at a great height, which, for the instant I could keep it in sight, did not fall much faster than the parachute. The parachute again turned over, and, to me and some others standing near, it disappeared for the twinkling of an eye, and in the succeeding instant it was seen to have changed its flattish circular form to that of a long body, like an umbrella partially opened, or more correctly, perhaps, to a balloon very much collapsed and descending with a great velocity. Some trees intervening prevented my further observation.

I made my way through the fields in the direction in which I had seen it falling, and as I reached a spot at a little distance from where it fell, I saw the lifeless body of the unfortunate gentleman placed on a hurdle to be conveyed by some farm labourers to an inn at Lee.

(Another Account.)

'I lament to describe what I was an eye-witness of:—The noise produced, I suppose, from the breaking of the supports, was astounding; it indeed seemed impossible that an individual could live in such a situation. He reached the earth alive, but quite insensible. He was alive for ten minutes after he came on the earth, but it was apparent that all was hopeless, from the great wound on his temple. The place where he fell is called the Six Acre-field, belonging to Mr. Norman, Lee, Kent. He was conveyed to the Tiger's Head public-house, kept by Mr. Thomas Seares.

Previous to the falling of the parachute, something descended from the car of the balloon, to all appearance like a large black handkerchief.

MR. GREEN'S ACCOUNT OF THE ASCENT AND DESCENT.

In consequence of the sad and fatal catastrophe which has befallen the late Mr. Cocking, I feel myself called upon to communicate to the public the whole of the particulars of my ascent with the Vauxhall Balloon, taking up with me Mr. Cocking in his parachute. The inflation commenced about 12, under the able direction of Mr. Hutchinson, the engineer to the London Gas Company, and was completed by 5 o'clock. Prior to the parachute being attached to the balloon, I caused a trial to be made with the view of ascertaining whether the buoyancy of the latter was sufficient to carry up the former with safety. The result of this trial was, after some arrangements with respect to the ballast, of which I was compelled to give out about 650lb.s in weight, had been effected, satisfactory. The abandonment of this large quantity of ballast I found to be absolutely requisite in order with safety to commence the ascent. The balloon was then allowed gently to rise a sufficient height to be conveyed over the parachute; but in consequence of the great and unavoidable delay which was necessarily caused in affixing the two machines, the gas in the former became very considerably condensed, from a reduction of its temperature. It thereupon became a matter of compulsion that I should get rid of 100lbs. more of ballast, which I

emptied out of the bags through a tube, constructed of canvass, and about 50 feet in length. The object in having this tube was, that any ballast I might deem it advisable to throw out during our voyage should take such a course as would entirely clear the broadest expanse of the parachute. The connexion between the balloon and the parachute was at length completed by the rope of the latter being made fast to the liberating iron by which Mr. Cocking was to free himself from the balloon.

It is but justice to myself I should here state, that I had on several occasions expressed my determination not to liberate the parachute from the balloon, upon the ground, setting aside any other considerations, that I might select a moment for the severance when Mr. Cocking was not altogether prepared or ready for his descent, and therefore if any accident were to accrue to him, that I of course should be regarded as the responsible party, and the one to whom blame would naturally attach.

Mr. F. Gye, every thing being in readiness, about 25 minutes to 8 o'clock, gave the signal for the whole of the apparatus to be released from its trammels, and we instantly rose very steadily, taking an easterly course.

'Mr. Cocking had always desired that we should ascend to an elevation of 8,000 feet, about one mile and a quarter, at which height he proposed to detach himself from the balloon, and to commence his descent. Finding, therefore, that our upward progress was very slow, I requested Mr. Spencer to discharge some more ballast, and he accordingly threw the contents of a bag weighing 20lb. through the tube already named. This proving of little avail, I directed a second and then a third bagful to be got rid of by the same means.

'At this period we were floating nearly over the Surrey Zoological-gardens, at an elevation of about 2,000 feet. It was at this moment that a portion of the lower end of the ballast-tube became detached, a circumstance which was caused by the occasional swinging to and fro of the parachute. This accident led to the inconvenience which I had foreseen some days before the ascent, and which led to the adoption of the tube, and of that of rendering it extremely difficult for us to discharge the ballast without its falling into the parachute.

'Our inability to this as we were then situated I communicated to Mr. Cocking, adding that under the circumstances it was impossible for us to rise any higher unless we were to attempt to throw the ballast in bags beyond the outer spread of his machine, a course of procedure which we considered to be attended with much danger to any persons who might chance to be beneath, but that we would, if he wished it, make the experiment as soon as we had cleared the houses. Mr. Cocking replied, "Very well, it is of no consequence; if you think I have time to rise as high as I want, and to descend before dark." I remarked, "I think you have; and you will then also have a more open country for the descent." We now continued to glide along, guided by the pleasure of the wind but nearly the same elevation until we had cleared all the buildings. During this time Mr. Spencer and myself were busily engaged in dividing our ballast into small parcels, so that we might be able to throw them over without injury to the parachute.

As soon as we found that we had arrived over the fields, and presuming that no danger could arise from the falling of the ballast, we quickly began to relieve ourselves of that essential commodity. In doing this our anxiety respecting any of it lodging in the parachute was much relieved by finding that that machine continually swung backwards and forwards, evidently occasioned by the operation of the currents through which we passed, so that we were enabled without any difficulty to cast away the bags without damage to the vehicle

immediately below us. We continued to discharge ballast until we had lessened our quality by 50lb., in addition to that already sent over. The balloon now began to rise, and soon entered a tier of clouds, when we lost sight of the earth. So great, however, was the resistance offered by the parachute to this denser atmosphere that we were again obliged, in order to attain the elevation Mr. Cocking pressed for (that gentleman considering that the greater the distance he had to fall, the greater would be the atmospheric pressure under the parachute, and therefore the easier his descent) to rid ourselves of 400lb. more ballast, and even then, we only arrived at the height of 5,000 feet, which is a trifle less than a mile.

'We were still 3,000 feet lower than Mr. Cocking's desired elevation.

'Whilst these operations were going on, Mr. Spencer and

myself held a conversation with our appended neighbour and friend, which was entirely confined to the progress we were making upwards, Mr. Cocking manifesting much anxiety, and wishing to be informed how we were rising, requesting to know when every additional elevation of 500 feet was accomplished.

"As soon as we had attained the height of 5,000 feet I told him that it would be impossible for us to get up as high as he desired in sufficient time for him to descend by the light of day. Upon this Mr. Cocking said, "Then I shall very soon leave you, but tell me whereabouts I am?" Mr. Spencer, who had a few minutes before caught a glimpse of the earth, answered, "We appear to be on a level with Greenwich." I then asked him if he felt himself quite comfortable, and whether he found that the practical trial bore out the calculations he had made? Mr. Cocking replied, "Yes; I never felt more comfortable or more delighted in my life." Shortly afterwards Mr. Cocking said, "Well, now I think I shall leave you." I answered, "I wish you a very good night and a safe descent, if you are determined to make it, and not to use the tackle."

"I should here observe, that with an anxiety to prevent any accident arising in the event of the violence of the wind rendering it impossible for a descent to be attempted, an apparatus had been constructed under the direction of Mr. F. Gye, to afford us the facility of assisting Mr. Cocking to haul himself up into the car of the balloon, and this is the tackle to which I thus alluded.

"Mr. Cocking to this question made no other reply than "Good night, Spencer; good night, Green."

"At this instant I desired Mr. Spencer to take fast hold of the ropes, and like myself to crouch down in the car. In consequence of being compelled to keep hold of the valve line, of course I had but one hand which was available for the purposes of safety. With that hand, fortunately, in the perilous situation into which we were speedily thrown, I was able to maintain my position.

"Scarcely were these words uttered before we felt a slight jerk upon the liberating iron, but quickly discovered, from not having changed our elevation, that Mr. Cocking had failed in his attempt to free himself. Another but more powerful jerk ensued, and in an instant the balloon shot upwards with the velocity of a skyrocket.

"The effect upon us at this moment is almost beyond description. The immense machine which suspended us between "heaven and earth," whilst it appeared to be forced upwards with terrific violence and rapidity through unknown and untravelling regions, amidst the howlings of a fearful hurricane, rolled about as though revelling in a freedom for which it had long struggled, but of which, until that moment, it had been kept in absolute ignorance. It at length, as if somewhat fatigued by its exertions, gradually assumed the motions of a snake working its way with astonishing speed towards a given object. During this frightful operation, the gas was rushing in torrents from the upper and lower valves, but more particularly from the latter, as the density of the atmosphere through which we were forcing our progress pressed so heavily on the valve at the top of the balloon as to admit of comparatively but a small escape by that aperture.

"At this juncture, had it not been for the application to our mouths of two pipes leading into an air bag with which we had furnished ourselves previous to starting, we must within a minute have been suffocated, and so, but by different means, have shared the melancholy fate of our friend.

"This bag was formed of silk, sufficiently capacious to contain 100 gallons of atmospheric air. Prior to our ascent the bag was inflated, with the assistance of a pair of bellows, with 50 gallons of air, so allowing for any expansion which might be produced in the upper regions. Into one end of this bag were introduced two flexible tubes, and the moment we felt ourselves to be going up, in the manner just described, Mr. Spencer, as well as myself, placed either of them in our mouths. By this simple contrivance we preserved ourselves from instantaneous suffocation, a result which must have ensued from the apparently endless volume of gas with which the car was enveloped. The gas, notwithstanding all our precautions, from the violence of its operation on the human frame, almost immediately deprived us of sight, and we were both, as far as our visionary powers were concerned, in a state of total darkness for between four and five minutes.

"As soon as we had partially regained the use of our eyes, and had somewhat recovered from the effects of the awful

scene into which, from the circumstances, we had been plunged, our first attention was directed to the barometer. I soon discovered that my powers had not sufficiently returned to enable me to see the mercury, but Mr. Spencer found that it stood at 13.20, giving an elevation of 23,384 feet, or about 4 miles and a quarter.

"I do not conceive, from the length of time I had been liberating the gas, that this was anything like our greatest altitude, for we were evidently effecting a rapid descent. This impression is corroborated by a rough calculation, which leads me to believe, knowing the customary rate at which the gas makes its escape, taken in consideration in conjunction with the length of time I had been pulling the valve-line, that we had lost at least 30,000 feet of gas, or 180,000 gallons, a total of 5,000 feet more than my own balloon will contain.

"It may be regarded as somewhat surprising that not a larger quantity had evaporated, especially when the size of the valves are considered, that at the top being nearly three feet in diameter, whilst the one at the neck of the balloon is upwards of two feet. The reason, however, is easily pointed out. The extreme rapidity with which we ascended, coupled with the consequent pressure of the atmosphere on the upper part of the machine, necessarily prevented much escape from the top valve. The same cause also forced an extraordinary emission from the opening at the neck, and I am decidedly of opinion, had it not fortuitously happened that the proprietors permitted this latter valve to be increased from 18 to 25 inches in diameter, that the balloon must have burst and my companion as well as myself been hurled headlong into eternity.

"As I have stated, we were now rapidly on the descent; having got rid of all the unusual annoyances to which I have referred; and finding that we were proceeding downwards with the ordinary calmness and steadiness, although with much speed, we hastened to empty two tin vessels of water which we had taken up for the purpose, and to charge them with the atmospheric air through which we were then descending. Our desire was to effect this object at our greatest altitude but from the circumstances which I have detailed we were unable to accomplish that end, and when the vessels were filled the mercury in the barometer had ascended to 17.50, or an elevation of 16,632 feet, about three miles.

"When we had accomplished this matter, finding ourselves suffering severely from cold, we referred to the thermometer, which stood at 28, four degrees below the freezing point.

"We were at this period apparently about two miles and a-half above a dense mountain of clouds, which presented the appearance of impenetrable masses of dark marble, whilst all around us was shed the brilliant rays of the setting sun. We continued to descend with great rapidity, and as we approached the clouds that velocity considerably increased. At this time so large had been our loss of gas that the balloon, instead of presenting to our sight its customary rotund and widely-expanded form, now merely looked like a comparatively small parachute, or half dome, without any aperture in its centre. We had parted with at least one-third of our gas, and were as far beneath the balloon itself as 50 or 60 feet.

"Recollecting the late hour at which we quitted Vauxhall, I now began to be anxious about the time, and on applying to Mr. Spencer, ascertained that it wanted not more than a quarter to nine o'clock. From this I was aware, notwithstanding in our then position we were blessed with a magnificent light, that on emerging below from the clouds darkness would have assumed her sable hue over the earth, and that we should have much difficulty, therefore, in ascertaining the nature and character of the country, supposing us to be over the land, on which we must effect our final descent. I, consequently, became extremely anxious to make our way through the clouds as quickly as possible, which having done we proceeded, until we had reached within some 300 feet of the ground, when we found it requisite, from our inability to ascertain the nature of the ground, the whole country beneath us offering the appearance of thick woods, to cast out every article of ballast and moveable matters, even to ropes and empty ballast-bags, in order to prevent us from coming in contact with what was supposed to be trees. After calling out for some time, and hanging out the grapnel, we heard voices in reply, and the parties speedily drew us to a safe place of landing, which proved to be close to the village of Offham, near Town Malling, seven miles west of Maidstone, and 28 from London.

"The balloon was packed, and conveyed in a cart to Town Malling, where we were most hospitably treated and provided

with beds by the Rev. Mr. Money, who, singular to relate, informed me that he is the son of Major Money, the aeronaut, who, on the 23rd of July, 1785, ascended from Norwich, and fell into the sea twenty miles off Lowestoff.

'At half-past ten o'clock this morning we quitted Town Mall, and it was not until our arrival at Wrotham, at which place I inquired whether they had heard where Mr. Cocking had descended, that I became acquainted with the unexpected and melancholy result of his experiment.

'I trust it is needless for me to say, how deeply the feelings of Mr. Spencer and myself were harrowed up by the sad intelligence thus conveyed to us.

'It is only due to the late Mr. Cocking I should add, that throughout the whole of our voyage, up to the moment when he released himself from the balloon, he displayed the greatest courage and fortitude, and the expression of his features, and the light and joyous, although earnest way, in which he made his inquiries and conversed with us, manifested his great satisfaction that at length a theory to which he had devoted the last 25 years of his life was about to be triumphantly put to the test.

'We were up about one hour and 20 minutes.

'Individually my opinion was, that having withstood the difficulties and severe pressure of the atmosphere in its ascent, Mr. Cocking's parachute would accomplish its descent with perfect safety.'

To the Editor.

SIR,—Perhaps the following particulars which I witnessed of the parachute descent of the unfortunate Mr. Cocking may be worth notice. The situation from which I viewed the ascent of the balloon and parachute was on Sydenham Common. At twenty-three minutes to eight o'clock the balloon and parachute ascended steady and majestically from the gardens, appearing to pass along without the least oscillation of either balloon or parachute. Mr. Cocking appeared distant from the car of the balloon about three-fourths the height of the balloon and car. The parachute in form was that of an inverted cone, with its sides from the apex to the base slightly convex; at seven minutes and a-half to eight o'clock, when it was detached from the balloon, its sides from the apex to the base then appeared slightly concave, descending very steadily for about ten seconds, when it appeared to enter a cloud, and I lost sight of it about eight or ten seconds; it then emerged from beneath the cloud, and continued to descend as steadily as when first separated from the balloon for about 40 or 45 seconds, its distance then being, I should judge, from the earth, by the elevation of my telescope, to be about one mile, when the upper rim of the parachute suddenly collapsed, and its descent instantly became more rapid, and descended with such accelerated velocity that I did not keep it in sight more than five or six seconds. The whole time elapsed in its descent from its separation from the balloon to the time I lost sight of it was one minute and ten seconds. At the time it was detached from the balloon I should judge it was full one mile and a quarter from the earth.

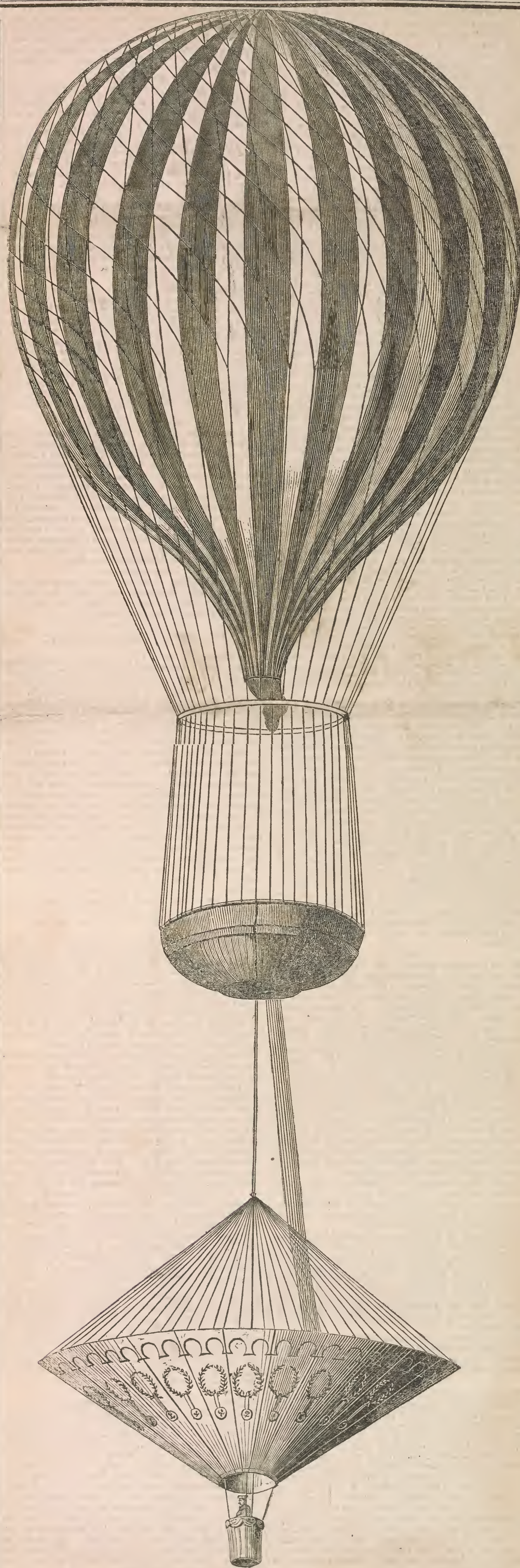
'Yours, respectfully, T. BISHOP.

'3, Poland Street, July 25.'

Independent of the experiment of a descent on a new construction of parachute, Mr. Cocking intimated his determination of trying an additional experiment with certain apparatus which he had prepared, and which he proposed to take up with him in the parachute. This resolution was strenuously combatted by his friends, and it was supposed that the project was abandoned until the evening of the ascent, when it was ascertained that Mr. Cocking intended to persevere, and had come provided with the apparatus. This new experiment consisted of a certain arrangement of rope by which Mr. Cocking believed he should be able so to regulate his descent, that in place of falling vertically, he could give the descent a diagonal direction, and thus, should it be necessary, have the means of clearing any object, such as a tree or even a house. Whether Mr. Cocking really did put his apparatus into action or not is a matter of doubt, but strong grounds exist for believing that he actually did endeavour to effect his purpose, and that in so doing he caused the parachute to swerve on one side, and ultimately to collapse.

I is evident from the marks in the basket in which Mr.

THE PARACHUTE EXPERIMENT. — The following particulars relative to the late Mr Cocking's projected experiment, which terminated so fatally, were gleaned from the various statements that have been published, and from the evidence adduced at the inquest. It appears that the parachute was constructed on a new principle, and that it had been inspected and approved of by several scientific men. Mr Green, however, did not approve of the tin tubes which it was fitted up with, and he suggested the probable advantage of substituting stretchers made of wood; but Mr Cocking being of opinion that the tubes possessed great advantage in point of buoyancy, they were allowed to remain. Up to the last minute Mr Cocking declared that he had no misgivings; he felt satisfied that his calculations were made not only with precision, but, in order to guard against accident, he had a power of 120 pounds more than was required. In order to facilitate the exclusion of the ballast, a pipe was so contrived as to run from the balloon through the parachute, but the balloon had not risen many feet in the air before it was found that the contrivance was useless. As it was indispensable that the balloon should be lightened, Mr Green, and Mr Spenser, his companion, finding it was impossible to discharge the ballast in the ordinary way, without throwing the materials on the parachute, began instantly to cut up the ballast bags, and to throw out the portions of ballast as far as they were able. This proceeding had the desired effect, and the balloon rose steadily. When about 600 feet from the earth, Mr Cocking inquired the height at which they then were. He continued to make inquiries as to the height, and, in answer to Mr Green, he said his calculations turned out according to his expectations, and he had no doubt of accomplishing his task with ease and in safety. When about 5,000 feet from the earth, he took his leave of his companions, and out away the parachute himself. From that period all is a matter of conjecture. Mr Green and Mr Spenser were occupied in discharging the gas on the instant the parachute was severed, but, notwithstanding all their expedition, the balloon thus lightened, rose, with fearful velocity, to an altitude of nearly four miles, and oscillated with such violence, that it was feared by the aeronauts it would turn over. The balloon rising in this rapid manner was impelled through the gas which was escaping, and the effect on the aeronauts was to deprive them of sight, and, for a short time, to threaten suffocation. Mr Green says, "The effect upon us at this moment is almost beyond description. The immense machine which suspended us between 'heaven and earth,' whilst it appeared to be forced upwards with terrific violence and rapidity through unknown and untravelled regions, amidst the howlings of a fearful hurricane, rolled about as though revelling in a freedom for which it had long struggled, but of which, until that moment, it had been kept in absolute ignorance. It at length, as if somewhat fatigued by its exertions, gradually assumed the motions of a snake working its way with astonishing speed towards a given object. During this frightful operation the gas was rushing in torrents from the upper and lower valves, but more particularly from the latter, as the density of the atmosphere through which we were forcing our progress pressed so heavily on the valve at the top of the balloon as to admit of comparatively but a small escape by that aperture." The parachute fell in a field near Lee. Hardly had it reached the ground before numbers were on the spot ready to render assistance. The unfortunate gentleman was not quite dead, but in a very few minutes life was extinct. He did not fall out of the basket attached to the parachute, but fell with the machine, and when first discovered was jammed in the basket, some of the wicker work being nearly forced through. Before reaching the earth the parachute turned over several times with great rapidity, and it was evident to all who witnessed the descent, that his death was inevitable. His body was removed to the Tiger's Head, at Lee, where several medical gentlemen attended, but all human aid was unavailing. In the opinion of the surgeon, death was caused by the dreadful concussion the system met with. It is stated by Mr Green that at the time the parachute was separated from the car the altitude was about a mile; and from the time of the oscillation commencing until the machine reached the earth, not more than a minute could have elapsed. Mr Green and his companion descended in the balloon at the village of Offenham, near Maidstone, where they were hospitably treated by the Rev. Mr Money, who informed Mr Green that he was the son of Major Money, the aeronaut, who, on the 23d of July, 1785, ascended from Norwich, and fell into the sea 20 miles off Lowestoff. The unfortunate Mr Cocking was in his 62d year. He was an artist by profession, and a gentleman of considerable scientific attainments. He had made several ascents with Mr Green. On the evening of the fatal ascent, he expressed the utmost confidence to his friends; and when it was suggested to him that it was not too late to retract, but give up the experiment, at least until a future day, he said he would not forego his intention for any consideration. *July 29. 1837.*



The Particulars of the
ASCENSION
And Fatal Accident,
OF THE
BALLOON.

At this enlightened age inventions & improvements are daily seen, it is now many years since the invention of this wonderful Machine, it was first constructed by Dr. Black, of Ediaburgh, in 1767, and improved by Messrs Stephen & Joseph Montgolfier. Paper Manufacturers at Annonay. where they made the first ascent at Avignon in 1782, it measured 117 feet in circumference, was capable of lifting 5cwt. it was 74 feet high and weighed 1000lbs since then improvements have daily increased.

This day every avenue leading to the Gardens were crowded to excess by the dense multitude of people who were waiting to gain admittance it being announced this Season for the new stupendous Balloon, the Gardens looked like a moving Panorama by the immense number of spectators who were present, could not be less than from fifteen to twenty thousand, and among them were seen several of High Rank of Nobility. The great skerk of Muscat having arrived but a few days from India was present on this occasion with all his attendants.

The balloon having commenced in flation, the visitors had a fine opportunity of witnessing the manner a thing of this kind was done. The Braháman Brothers went thro' their astonishing exercises peculiar to the nature of their own Country. The filling having been completed, it was announced by the firing of a signal gun when preparations having been made for ascending and the Acroants having seated themselves in the Car, a few moments elapsed when the signal gun was fired & the bounding Car which kept this monster balloon to the earth having been let loose, it rose majestic through the air steering its course with rapidity until it was lost to the views of thousands of gazing

We understand a dreadful accident occurred to the aerial voyagers by the downfall of the monster, we can rely on the authenticity as we had it from our reporter, it still must be in memory of every person of the fatal accident of Mr. Cocking who lost his life and nearly proved fatal to those in the Car.

Further particulars will be known and published as early as possible
Carpue, Cheap Printer, 28, Fashion str. Spitalfield

Royal Gardens, Vauxhall.

ASCENT
OF
THE ROYAL
NASSAU BALLOON
FOR THE
Benefit of the Widow
OF
The late Mr. COCKING,
NEXT WEDNESDAY,
9th AUGUST, 1837.

The Friends and Relations of Mrs. COCKING most respectfully acquaint the Nobility, Gentry, and Public, that the Proprietors of Vauxhall having most kindly granted the Gardens and the use of their Royal Nassau Balloon for the above purpose, and Mr. Green having, also, most generously offered his valuable services, an Ascent will take place Next Wednesday, August 9, when all the Proceeds will be appropriated to the relief of the unfortunate Widow, who is entirely left without the means of support.

Seats in the Car may be secured on application at the Gardens;
Gentlemen, £21.---Ladies, £10:10s.

 Doors open at HALF-PAST TWO. Balloon to start at SIX.

Admission, HALF-A-CROWN.

Balne, Printer, 38, Gracechurch Street.

July 10/37

LAMENTABLE PARACHUTE ACCI-

DENT.—A few gentlemen having investigated the circumstances of Mr. Cocking's Widow, and finding that she is left in a state of utter destitution, are most anxious to promote a Subscription for her relief, and they respectfully solicit the aid of the public in furtherance of this object. The smallest sums will be thankfully acknowledged, and properly applied, by J. Durrant, Esq., Royal Exchange. Subscriptions will also be received at the banking-houses of Messrs. Smith, Payne, and Smith, and Sir J. Lubbock, Bart, & Co.; and by the Proprietors of Vauxhall Gardens, either at Vauxhall, or at 141, Fleet-street.

BALLOON ASCENT FOR THE BENEFIT OF MRS. COCKING. 10th July 1837

The proprietors of Vauxhall having given up the free use of the Royal Gardens for the above laudible purpose, as also of the grand Nassau balloon, Mr. Green followed up the "good work" by making a gratuitous ascent yesterday afternoon. The entire receipts are very properly to be appropriated for the benefit of the widow and family of the late Mr. Cocking, whose lamentable death it is unnecessary more than to advert to, the occurrence of it being too fresh and of too painful a character to be easily forgotten. Though the gardens were, we regret to state, far from full, the company was highly respectable and genteel, which is saying much in the present deserted state of the metropolis. Mr. Green, accompanied by six male companions, one of whom, Mr. Campbell, came purposely, it is said, from Plumstead, near Norwich, to make the ascent, which took place a little before seven o'clock. The huge and handsome monster rose, as usual, majestically above the trees, remained for some minutes in sight, and then taking an almost northerly course, inclining a little to the west, left the spectators to conjecture its probably ultimate destination. The receipts it is hoped will be something handsome, and they certainly would have been much more so, if the gentry congregating around the vicinity in their carriages, and on horseback, had charitably contributed their donations, for a sight which they crowded in such apparent anxiety to see for nothing. Besides the receipts at the doors and to the enclosure, arrangements were made for the collection of subscriptions, a table with writing apparatus being placed in front of the orchestra for that purpose; and we trust that the munificent example of her Majesty, who had previously forwarded to the widow 50*l*, will cause this subscription, aided by the receipt of the evening, to amount to a sum sufficient to place Mrs. Cocking in comfortable circumstances. The Mazoni and Surrey Yeomanry band, were in attendance, and the company was permitted to remain for the evening performances.

On Wednesday the Proprietors of Vauxhall Gardens gave a benefit to the widow of the unfortunate Mr. Cocking, and an ascent of the great Nassau Balloon was deemed the most attractive, if not the most appropriate, feature of the entertainments. We regret to learn that the vicinity of the Gardens outside was thronged with spectators (many in their own carriages!) who preferred to save in their own pockets the half-crown which, as an admission fee was expected to swell the subscription for the poor and aged widow. We do not envy the taste of these outside spectators, but we are happy to add that better feelings crowded the Gardens, and that in addition to the receipts at the door many subscriptions were collected within. The kindness and good spirit of the proprietors did all that could be done to forward the humane object of the evening. Mr. Green ascended in the balloon at twenty minutes before seven, accompanied by six adventurous amateurs, one of whom had come from Norwich for the express purpose of accompanying the aeronaut. The ascent was unusually stately and magnificent, and the balloon, soaring to its loftiest height, crossed and recrossed the Thames in the sight of multitudes, and at length, bearing away before the southern breeze, descended in a meadow at Leylam, in Surrey, twenty-two miles from London. Mr. Green and his companions having packed up the balloon returned to the Gardens about midnight, and the joy at their presence added, in the eye of the satisfied spectator, to the brilliancy of the fireworks.

Her Majesty has expressed through Sir Henry Wheatly her sympathy in the afflictions of Mrs. Cocking, and presented her with fifty pounds.

Balloon Ascent for the Benefit of Mrs. Cocking. Aug. 29. 1837

DESCENT OF TWO PARACHUTES.—On Tuesday evening Mrs. Graham made an ascent from the gardens of the Mermaid Tavern, Hackney, in her Royal Victoria balloon, for the benefit of the widow of the late Mr. Cocking. Attached to the balloon were two parachutes, which were exact models of those used by M. Garnerin and Mr. Cocking, the descent of which was intended to show the comparative safety of their particular structure. The parachutes were made of cotton, the framework of cane. In an apartment of the tavern were exhibited the model of Mr. Cocking's parachute, manufactured by himself; likewise several models of balloons, and other things connected with aerostation, also the work of that unfortunate gentleman. In one corner of the room were placed the remains of the parachute with which Mr. Cocking made his rash experiment. In consequence of the unfavourable state of the weather the gardens were not well attended, there not being more than eight hundred people present, and that number, we should think, scarcely sufficient to pay the expenses incurred; therefore, as far as benefit is concerned, it must be considered a total failure. About a quarter past six the inflation of the balloon being completed, a bar of wood was placed across the car, along the upper surface of which ran a cord, passing through holes at each extremity. To the ends of the cord were attached the respective parachutes; so that by cutting the cord in the centre, they would descend at the same moment. All the arrangements being completed, Mrs. Graham entered the car accompanied by a Mr. John Adams, and the balloon ascended in very beautiful style. Having attained an altitude of six or seven hundred feet, Mrs. Graham cut the cord which supported the parachutes, and they descended at the same moment. It was some seconds before the model of M. Garnerin's parachute opened, and when it did, the oscillation complained of on the occasion of the actual descent of that gentleman took place; that of Mr. Cocking was somewhat slower in its descent, and very steady. The parachutes fell in the grounds of a gentleman very near the place of ascent, and were shortly after brought back to the gardens.

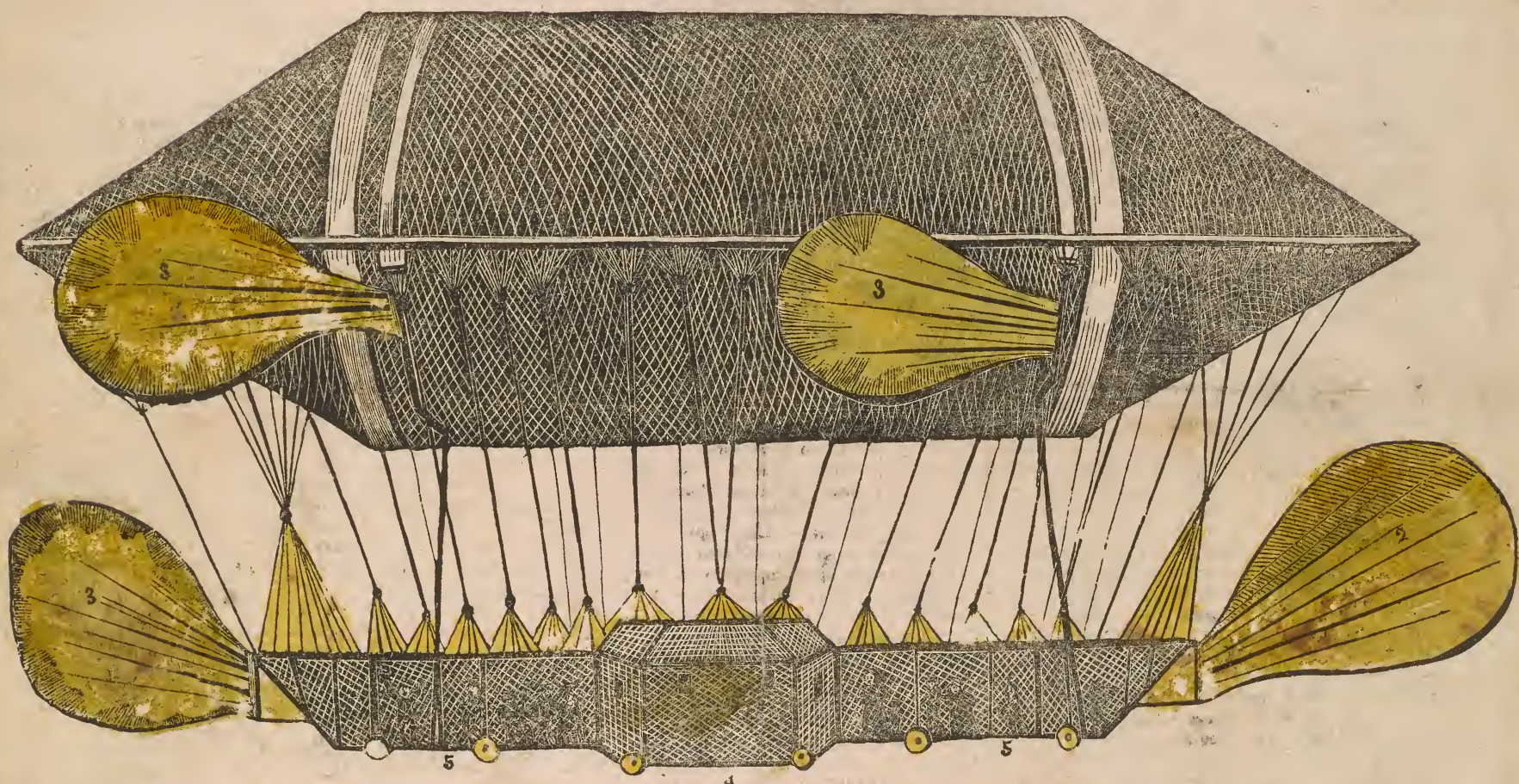
Herald Sept. 1. 1837

MRS. COCKING.—Notwithstanding the great efforts which have been made by the friends of this unfortunate lady, we understand that the sum already received on her behalf has not by any means realised the anticipations of those parties who have interested themselves in her favour; nor is it, indeed, equal to the very pressing exigencies of the case. The noble example of her Majesty, in her munificent gift (50 guineas), has not been followed up by the public in the way that it might be expected from the peculiar and painful situation in which Mrs. Cocking has been left, in consequence of the rash and fatal experiment of her ill-fated husband. The attendance at the benefit given by the proprietors of the royal gardens, Vauxhall, was not so great as might be expected on such an occasion; and a loss of nearly 20*l* was sustained (in consequence of the unfavourable state of the weather) in the attempt to get up a benefit at the Mermaid Tavern, Hackney, on Tuesday last.

We have been requested to contradict that part of the statement in Wednesday's paper, which described the parachute in which Mr. Cocking unfortunately lost his life, as having been exhibited at the Mermaid Tavern, Hackney, on the occasion of the ascent of Mrs. Graham. The dilapidated parachute is in the possession of the constable at Lea, it having been forfeited as a deodand.

The proprietors of Vauxhall give proceeds of "Royal Property" Wednesday night in aid of subscription raising for widow of the late Mr. Cocking, who lost his life by descent in a parachute—Mr. Green makes gratuitous ascent in great Nassau Balloon, and Gas Company inflate it free of charge—understood that her Majesty, sympathising in deep affliction under which Mrs. Cocking labours for loss of her husband, has, in humane and beneficent spirit which distinguishes all acts of her reign, sent bereaved widow 50*l*.

THE AERIAL SHIP!



An Interesting Account of the above Stupendous Balloon CALLED "THE EAGLE," Which is shortly to ascend from KENSINGTON, with 17 Persons, and sail thro' the Air from LONDON to PARIS, and back again.

IT may be in the recollection of our readers, that in August 1834, the public papers gave an account of the Aerial Ship intending to sail from Paris to Hyde-Park Corner; but unfortunately, just at the moment of its expected ascent, it suddenly turned topsy-turvy, and burst with a loud explosion! The Parisians being thus disappointed of beholding the long-promised *spectacle*, outrageously rushed upon the fallen balloon, and instantly tore it in pieces, and carried it off in portions, which were exhibited and sold in Paris, in the course of the afternoon.

Count de Lenox (the ingenious projector of the Aerial Ship) although thus defeated was not dismayed, and resolved to try his fortune on English ground. Accordingly in March last, he arrived in London, and engaged a spacious piece of ground in Victoria Place, Kensington, where he is now exhibiting his stupendous machine. As the Count de Lenox is a man of talent and enterprise, and profoundly skilled in the science of aerology, no doubt can be entertained of his accomplishing his herculean task.

This Balloon is intended to leave London for Paris in August next, which it is expected to be accomplished in six hours. It is 160 feet long, 50 feet high, and 40 feet wide, and to be manned by a crew of 17 persons. The purpose for which it is constructed, is to establish a direct communication between the several Capitals of Europe.

The ordinary balloon is, from its shape, wholly at the mercy of the winds, as a tub is of the waves; the Aerial Ship is capable of direction, although like its namesake of the deep, must depend for its velocity upon the wind. Its inventor, wisely turning to nature for a model, found one in the fish; and, in fact, the work should be called the Aerial Leviathan, or the great Air *Serpent*. It will be seen the body is oblong, and at either

end it runs off to a point. This vast reservoir of gas is made of cotton fabric, thoroughly varnished so as to be air-tight. Suppose it to ascend into the air, being filled with gas, and specifically lighter than the atmosphere, it would naturally lie lengthwise in the direction of the wind, its greater lateral surface yielding until its end should lie before the wind's eye. As long as the wind remained in the same quarter, it would move on without turning, or winding round. If the wind should prove only slightly contrary, the inventors of this machine hope to keep their course by means of two fins or wings near each end of the machine, of broad surface and light construction, and also by means of a fan-tail or rudder, intending to act after the manner of a fish. This tail is fastened not to the balloon itself, but to the car in which the voyagers take their places, and which being made of net-work and as little solid material as possible, is suspended beneath. It is long and narrow, and in the mid-way is the cabin for holding the machinery for moving the wings or fins. But should the wind prove contrary, and there can be no doubt now that the atmospheric currents are frequent and fitful, then nothing is left the voyagers but to descend towards the earth. It may be remarked, that by a partial descent an unfavourable may be changed for a favorable current. One of the most satisfactory of the whole machine, is that which renders ascent or descent perfectly easy. Here again the economy of the fish's construction is had recourse to. Within the balloon is a smaller air-balloon, to correspond with the air-bladder of fishes. This can be filled or exhausted at pleasure by very simple means. If it be filled with atmospheric air the gas in the cylinder may be compressed to such a degree, that what with the ballast in the car, the whole machine becomes specifically heavier than

the air around it, and it descends accordingly. Should they wish to ascend, the small air balloon is exhausted—the gas expands—the cylinder is of less specific gravity than the air, and rises. The result of the whole experiment seems to us to amount to this. The Aerial Ship will, with a fair wind, go rapidly any distance its crew desire—but it is liable to frequent delays. In either case it is safe. It cannot be turned to any very useful purpose, inasmuch as vast as is its bulk, it can but accommodate some twenty persons—one half crew and one half passengers. The passengers can never pay for the expenses of the immense quantity of gas which is requisite to fill the cylinder. Thus, uncertainty—great, but not so great as that in a common balloon—and expense must, upon a general calculation, counterveil the advantages of its occasional velocity. Exhibition before, and at starting, may contribute to its outlay, but that only while it is a novelty. Count de Lenox calculates on being ready for the voyage the latter end of this month, or beginning of next. They are but making an experiment, in which they deserve encouragement. Some three years ago, they made the first trial in a smaller machine, and sailed from Paris, 127 miles across France.

It is intended to make similar trips to Brussels, Amsterdam, Berlin, Munich, Madrid, &c. till the practicability of establishing an aerial communication between London and the other capitals of Europe is fully and incontrovertibly demonstrated.

In 1796, Mons. Camperus proposed the construction of a similar balloon, for Buonaparte, in which he intended to hover over the English fleets, and throwing downwards firebrands made of a substance which would kindle only by coming in contact with the ships, and so destroy them.

Explanation of the References in the Engraving.

1. The body of the balloon, or cylinder, containing a smaller air-balloon, and the gas.
2. The fan-tail, or rudder, to steer with, made of cane, and covered with lawn.
- 3, 3, 3. Wings, made of lawn, and netted over: they, as also the rudder, are worked by machinery enclosed in the cabin.
4. The cabin, which contains the machinery.
5. The sides of the car, secured with lattice-work for the protection of the voyagers, while perambulating or making of observations.



THE EAGLE:

The First Aerial SHIP!

The Wonder of the World.

Oh, have you heard the news,
Sure wonders never ceases,
And as we older grow,
Fine wonders more increases.
The Aerial ship they say,
Will leave Old England's shore, sir,
Well rigged, besides a crew
To join the Spanish war, sir.

Cho) This Aerial ship they say
Will make you all to stare, sir,
Well rigged, besides a crew,
For sailing through the air, sir.

The Aerial ship they say,
Will go by wind and steam sir,
With paddles and her wings,
How funny that will seem, sir.
And a crew of seventeen,
No other ship will catch her;
The Captain might do well
To be a body snatcher.

An old Sailor went to see
The aerial ship a lying;
He says it seems to me,
A d—d rum thing for flying.
Three lussy dames outside,
They bawl'd as they did in pop,
I say, my jolly Tar,
'Twould make a slashing gin-shop.

A covey he was there,
And said it was a whale, sir;
But his lady did declare
She could not see his tail, sir.
One of the crew came up,
Delivering of a message,
He said—marm, here's the tail,
And he showed a German sausage.

The Greenwich College men, oh law,
Have all subscribed, oh fegs sir,
They'll send to the Spanish war
Ten thousand wooden legs, sir;
Besides some three cockt hats,
And cloaks to keep them warm sir.
Five hundred wooden heads,
Glass eyes and iron arms sir.

Some say the aerial ship
Will never rise at all sir,
Its done for the sake of cash,
And then deceive you all, sir.
And others say twill go
To Holland, without swimming,
And smuggle lots of gin,
For the poor old drunken women.

In August off she starts,
To Paris she'll be bound, sir,
But before she goes away,
She'll sail o'er London town, sir.
And when that she goes up,
The people how they'll stare, sir,
They'll think it is St. Paul's
A cutting through the air, sir.

What do you think of steam?
Its got to great perfection,
Here's machinery and steam
In every direction.
For some by steam they swini,
And now they've steam for flying.
The next there will be steam
To keep us all from dying.

GEO. BROWN.

Printed at TAYLORS Universal Song Mart,
14, Waterloo road. Lambeth. Conny Orders
punctually attended to. Sold by MARTIN,
Little Prescott-street Minories.

By Authority.



A FULL AND

CORRECT DESCRIPTION

OF THIS

EXTRAORDINARY MACHINE,

THE FIRST.

AERIAL SHIP,

THE EAGLE.

This stupendous Machine is 160 feet long, 50 high, and 40 wide, constructed for establishing a direct communication between the Capitals of Europe. The first experiment of this new system of Aerial Navigation will be made from London to Paris, and back again, early in August.

LONDON:

PRINTED AND PUBLISHED BY J. THOMPSON,
6, GLOUCESTER STREET, LAMBETH.

1835.

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is to establish in the great ocean of the atmosphere a general navigation, infinitely more certain and more advantageous than maritime navigation, which has ever disturbed the tranquility of mankind—to restore the perfect liberty of commerce, and to give peace and happiness to all the nations of the universe, and unite them as one family. By great labour I have surmounted the multiplied obstacles which presented themselves before me; and my progressive discoveries are developed in a work which I have prepared, consisting of about 400 pages, and divided into five parts.” How lucky for England that the “new Jupiter” had other things on hand, to divert his attention from this most appalling (though not more appalling than *sensible*) scheme of national destruction!—*Mechanics’ Magazine*.

Extract from the Morning Advertiser

SIR,—It gives me great satisfaction to find that the scheme for conducting air balloons, suggested by me in your paper, meets the approbation of so experienced a gentleman as Mr. F. Stanhope appears to be. I will now, with your permission, offer a few remarks on the aerial ship which at present occupies so considerable a share of the public attention.

The propelling of a balloon by means of artificial wings, bears a close analogy to the rowing of a boat with oars. Now, in order to acquire a power equal to the stroke of an oar, the aerial ship would require a pair of wings, each of them measuring at least one hundred feet in length. Such a pair of wings would be a mere incumbrance—they could never be worked effectively. Want of length cannot be compensated by extending the lateral surface, because the propelling power is required almost wholly by the length and quickness of the stroke. Even with wings of this extravagant length, and assuming that they could be worked, the effect would fall very much short of that of a pair of oars upon a Thames wherry. The boat skims upon the surface of the water, and in making the back stroke the oar is lifted out, whereas the balloon is wholly immersed in the fluid through which it has to be propelled, and in the returning stroke the wings cannot be lifted out like the oars, so that the back stroke of one wing will in a great measure neutralise the effect produced by the forward stroke of another. This disadvantage seems to have been entirely overlooked in constructing the wings, or rather fins, of the aerial ship. They ought to have been made capable of being folded like the wing of a bird, or a lady’s fan; or perhaps it might answer equally well, and would be easier in practice, to have had them made upon the principle of the Venetian blind, so that in making the back stroke the wing would pass through them.

The Aerial Ship can never be propelled by such wings as she has now got. The *Morning Herald* says they are imitations of the fins of the dolphin. If the gentlemen of the “European Aeronautical Society” will step down to the side of the river, they may see every day fifty working models that would suit there purpose a great deal better than the dolphin. Let them take away those ridiculous flaps; or dolphin fins, and substitute a pair of light paddle-wheels similar in form to those of a steam vessel. Nothing can be more simple to work; they could be fixed upon one spindle cranked in the middle, to form a handle, and turned by the persons standing

BALLOON COMMUNICATION

BETWEEN

LONDON AND PARIS.

We perceive that the grand aerial project which occupied so much of the attention of the Parisian quidnuncs about this time last year, is revived—with this difference only, that the scene of operation, or to speak more properly, perhaps, the starting-post, has been shifted from Paris to London. The projectors who have now taken unto themselves the style and title of the “European Aeronautical Society,” announce in the newspapers that their “first aerial ship, the Eagle, 160 feet long, 50 feet high, and 40 feet wide,” and which is to be (?) “manned by a crew of seventeen persons” may be inspected at a certain dock in the neighbourhood of Kensington, previous to making its first trip “from London to Paris and back again;” after which it is to make similar trips to Brussels, Amsterdam, Berlin, Munich, Madrid, &c. till the practicability of establishing an aerial communication between London and the other capitals of Europe is fully and incontrovertibly demonstrated? The scheme is, after all, only a copy, and that but an indifferent one, of a plan that was proposed as far back as 1796, by an engineer, of the name of Campenas, and not only entertained by the French government, but sanctioned by that select body of *savans*, the French Institute. Campenas wrote a long letter to Bonaparte, then General-in-Chief of the army of Italy, from which we extract a paragraph or two. “General Citizen,—The artist who addresses you, filled with the most lively gratitude, will erect, if the means of execution be afforded him, a vast edifice, whence, at the conclusion of his labours, there will issue an Aerial Vessel, capable of carrying up with you more than 200 persons, and which may be directed to any point of the compass. I, myself, will be your pilot. You can thus, without any danger, hover above the fleets of enemies jealous of our happiness, and thunder against them like a new Jupiter, merely by throwing perpendicularly downwards firebrands made of a substance which will kindle only by the contact and percussion at the end of its fall, but which it will be impossible to extinguish; or perhaps you may think it more prudent to begin at once, by forcing the British cabinet to capitulate, which you may easily do, as you will have it in your power to set fire to the city of London, or to any of the maritime towns of England. From the calculations I have made, I am convinced, that with this machine you may go from Paris to London, and return back again to Paris in twenty-four hours, without descending. The object I propose

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or sitting in the car. Ten or twelve men would produce more effect in this way than thirty or forty with wings or flaps, and that without any complication of machinery whatever. But it should be observed that the paddle-boards must be made in the Venetian-blind fashion, so that the air may pass freely through the upper part of the wheel. It appears to me that this is the best, and indeed almost the only mode in which any good can be done with a balloon by manual power, because the paddle-wheel gives a continuous propelling power. But after all, this is only “making a toil of a pleasure.”

Nothing whatever can be done with sails in directing the course of a balloon; put up a sail in whatever way you will, it will only cause the balloon to whirl round till it adjusts itself to the current; it will then proceed in the same direction that it did before the sail was put up. The large rudder or sail of the aerial ship will have an effect exactly the same as the tail of the weathercock, in whatever direction the wind may blow the rudder will be sure to go foremost; it ought to have been made so that it might be folded up or extended as occasion might require.

I did not “recommend the employment of pigeons for the conductors of the aerial ship to Paris,” as your correspondent “Fog” asserts (some relative of “Frosly-faced Fogo,” I presume). I am aware that it would require a very great number of pigeons to produce any effect upon a machine so vast and unwieldy as the aerial ship; but I must take the liberty to say, that even geese would be more serviceable to the conductor than those foolish flaps that “Fog” has honoured with the appellation of “mechanical wings.” I do not propose to build an aerial ship large enough to carry a garrison for the purpose of compelling cabinets to submit to the fiat of a “new Jupiter.” My designs are much more modest. What I propose is, to construct a balloon large enough to carry one, or at most two persons, and to attach it to forty, sixty, or even one hundred pigeons, if necessary, and in this manner I am satisfied, from experiments that I have made upon a small scale, that I should be enabled to conduct the balloon in any direction I pleased, provided the weather was moderately calm.

Bishop Burnett said, “the time would come, when there would be no more surprise felt at a gentleman calling for his wings to take a flight, than if he called for his boots to take a walk.” I will not go the whole length of the bishop. I will leave the “mechanical wings” for others to manage; I have a much higher opinion of the natural wing. However, I will venture to give this opinion, that, in no very great length of time, it will be nothing uncommon for a gentleman to call for his balloon and his birds as he now calls for his carriage and horses.

Yours, &c.
T. S. MACKINTOSH.

Société aéronautique.



PREMIERE ASCENSION
ET MANOEUVRES
DU
NAVIRE AERIEN
(L'AIGLE),

Le Vendredi 15 Août, Jour de la fête de l'Assomption,
Dimanche prochain 17 août
AU CHAMP-DE-MARS,
à 2 heures.

PRIX D'ENTRÉE : 1 FRANC PAR PERSONNE.

Stalles numérotées et gardées jusqu'après l'ascension,
(près le Ballon-Navire) 10 fr.
Places assises dans la seconde enceinte 5

S'adresser pour la location des places et les coupons de stalles :

Chez MM. Galignani, rue Vivienne, n. 18.
Au bureau de l'*Advertiser*, rue Neuve-St-Augustin,
n. 55.
Au Café de Paris, boulevard des Italiens.
Au Café Tortoni, boulevard des Italiens.
Au Café de Foy, Palais-Royal.
Au Café Desmares, rue de l'Université, n. 25.
Et aux ateliers de la Société, Champs-Elysées, Cours-
la-Reine, en face du pont suspendu des Invalides.

Société aéronautique.



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Au Café de Foy, Palais-Royal.
Au Café Desmares, rue de l'Université, n. 25.
Lutton, imprimeur-gr., passage du Saumon, n. 26.
Et aux ateliers de la Société, Champs-Elysées, Cours-
la-Reine, en face du pont suspendu des Invalides.

Toutes les personnes qui prendraient d'avance, à l'adminis-
tration ou dans les dépôts, des billets de stalles gardées, pour
le jour de l'ascension du ballon, ont droit à leurs entrées tous les
jours aux ateliers et seront admises à voir gratuitement, en
présentant leurs billets, toutes les expériences préparatoires
que le peu d'étendue du terrain ne permet pas de faire en pré-
sence du public.

On trouvera au Champ-de-Mars des glaces et toutes espèces
de rafraichissemens en abondance. M. Desmares, glacier-limo-
nadier, rue de l'Université, n° 25, est chargé de ce service.

SOCIÉTÉ AÉRONAUTIQUE.



NAVIRE AÉRIEN,

MONTE PAR

un équipage de 17 personnes

ET DESTINÉ A DES

VOYAGES DE LONG COURS.

En même temps qu'il est un sujet d'étude digne d'un sérieux examen, cet objet d'art, nouveau dans les annales de la science aéronautique, offre au public le spectacle le plus intéressant, par ses proportions inusitées, par l'originalité de sa construction, et le mécanisme ingénieux qui sert à le diriger.

ENTRÉE :

Tous les jours de la semaine. 1 fr.
Le Vendredi. 2 fr.

Le Ballon-navire est exposé.

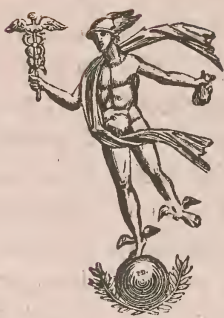
Depuis 6 heures du matin jusqu'à 9 heures du soir.
*Aux Ateliers de construction de la Société, Champs-Élysées,
Cours-la-Reine, en face le pont suspendu des Invalides,
au coin de l'allée d'Antin.*

Les Omnibus du Carrousel passent devant la porte.
Cette station correspond avec la Bastille et toutes les autres stations de Paris.

Toutes les voitures de Passy, Auteuil, Sèvres, St-Cloud, Versailles, etc., etc., passent également sur le quai devant l'Etablissement.

Ces voitures passent également devant le Champ-de-Mars où doit avoir lieu l'ascension publique.

N. B. Sur la demande d'un grand nombre de personnes, l'exposition dans les ateliers continuera jusqu'à vendredi prochain 15 août inclusivement, jour de la fête de l'Assomption.



PROGRAMME.

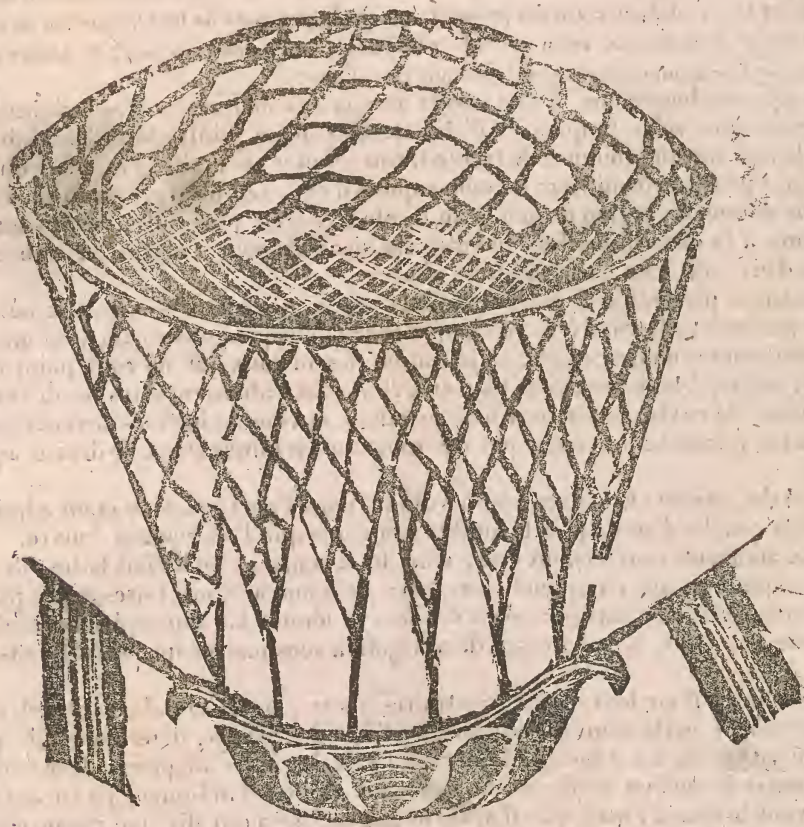
Ascension, Manœuvres et Description du Navire aérien nommé *l'Aigle*, de 150 pieds de longueur sur 45 de hauteur, qui partira des Champs-Élysées pour descendre au Champ-de-Mars, et de là partir pour Londres, 98 lieues de Paris, en deux heures. — Les noms des personnes composant l'équipage, parmi lesquelles se trouvent deux dames accompagnant leurs maris.

PARIS et Londres, villes renommées par leur commerce et leur industrie, qui longtemps furent divisées par la politique, et aujourd'hui agissant d'unité pour l'intérêt des peuples, sont les seules villes proprement dites qui offrent un concours perpétuel de nouveautés et inventions faites pour fixer l'attention des amateurs. Ici c'est un chemin de fer imposant par sa construction; là une voiture ou bateau à vapeur, et mille autres choses utiles dont il faudrait des volumes entiers pour en rendre compte. Des hommes adroits et intelligents viennent depuis peu d'offrir aux regards du public parisien un omnibus allant à Lyon et d'une dimension tout-à-fait extraordinaire. Aujourd'hui la scène change : au lieu de voyager sur la terre et sur l'onde, c'est dorénavant les airs que nous devons exploiter. En cela nous ressemblerons à l'hi-

rondelle voyageuse qui s'élève au printemps dans la couche d'air qui se meut vers le nord, et portée sur l'aile des vents, elle arrive dans nos climats après avoir fait sans fatigue souvent plus de quarante lieues à l'heure. Ainsi, à bien considérer, ce procédé ne peut être que très-avantageux, puisqu'une seule journée suffira pour parcourir une partie du globe.

Tous ces jours derniers de nombreux visiteurs sont venus voir le ballon navire nommé *l'Aigle*. Cet immense aérostat, étendu sur la pelouse, ressemblait au premier aspect à un monstre marin. Sa longueur est de 150 pieds sur 45 de hauteur. Le tissu qui le compose est en soie et coton, recouvert d'un enduit gommeux ou caoutchouc; un second ballon en calicot gommé doit être introduit dans le premier, comme mesure de prévoyance et de sûreté

DÉTAILS sur la construction et le départ du nouveau navire aérien L'AIGLE. Les noms des personnes qui doivent partir à la première ascension.



Le nouveau ballon navire a 150 pieds de long sur 45 de hauteur; sa capacité est trois fois plus considérable que celle des plus forts ballons dont il a été fait l'essai jusqu'à ce jour. Il offre à peu près la forme d'une vessie natatoire de poisson, un peu grosse du milieu et terminée à chaque extrémité par un cône aigu; cette forme a, dit-on, l'avantage de rencontrer dans l'air une résistance six fois moindre qu'un ballon sphérique.

Le ballon en construction est destiné à enlever un poids de 6,500 livres; la nacelle sera placée immédiatement au-dessous de l'appareil auquel elle sera adhérente, à la différence des nacelles dont on a fait usage jusqu'à ce jour, qui, étant suspendues sous le ballon, sont entièrement soumises à son impulsion, sans pouvoir lui imprimer aucun mouvement.

Le ballon nouveau est contenu dans un immense filet, dont tous les fils aboutissent à l'endroit où se trouve placée la nacelle. Tout mouvement de la nacelle peut dès lors se communiquer au ballon, et se répartir immédiatement sur toute sa surface.

Sur le filet qui contient le ballon sont placées des échelles de cordes, qui permettent d'aller visiter toutes les parties extérieures, et d'y faire, au besoin, des réparations.

La nacelle a 65 pieds de long; elle est construite en osier, en forme de galerie, et pourrait contenir 30 personnes.

Le ballon est construit au moyen d'une toile préparée de manière à contenir le gaz pendant près de 15 jours. On sait que, jusqu'à présent, les tissus qui ont été employés offraient le grave inconvénient de laisser échapper le gaz, et, par suite, de mettre les aéronautes dans la nécessité de prendre terre plus tôt qu'ils ne voulaient, souvent dans des endroits dangereux.

Il y a un gouvernail en avant de la nacelle et un en arrière; et de chaque côté deux roues armées de rames en toile, construites à l'imitation des roues des bateaux à vapeur.

Chaque gouvernail et chaque roue pourra frapper l'air tantôt d'une manière permanente aux dé-

pour l'équipage composé de dix-sept personnes.

La nacelle est en osier parfaitement tressé, garnie de petits bancs pour les voyageurs, et porte sur ses parties latérales les appareils de direction. A chaque extrémité est une roue dont les ailes prennent l'allure que les navigateurs veulent lui donner. Ces roues pourront s'élever ou servir à descendre de même qu'un bateau s'élève ou s'enfonce suivant l'effort que la rame reçoit; cependant le principal appareil sera au centre du navire et consistera tout simplement dans une pompe qui comprimera plus ou moins l'air.

L'ascension publique, d'abord annoncée pour le jour de l'Assomption, d'après la décision de la société a été remise par de nouvelles affiches pour le dimanche 17. Les aéronautes s'élèveront d'abord du lieu actuel, c'est-à-dire des Champs-Élysées pour aller descendre au Champ-de-Mars, où aura lieu le grand départ à deux heures.

La destination est l'Angleterre, et le point de descente à quelques milles de Londres. Deux dames en compagnies de leurs maris font partie de cette expédition aérienne, ce sont M^{mes} Lenox et Edan. Les autres personnes sont MM. Lenox, Ajasson de Grandsagne, Laurens, Edan, etc. Hier samedi 16 les curieux en très-grand

nombre ont continué d'être admis à visiter ce gigantesque appareil au Cours la Reine.

Il y a deux ans M. Lenox, un des savans à qui nous devons cette entreprise hardie, avait construit dans les carrières de Montmartre un vaste aérostat qu'il cachait à tous les yeux et qu'il enleva un soir pour étudier, sans curieux, la portée de ses calculs; mais les résultats ne répondirent point à son attente.

Aujourd'hui cet artiste, ayant conservé à son ballon sa forme allongée à l'imitation de celle d'un poisson, a placé dans l'intérieur de cette immense machine une sorte de vessie natatoire qu'il remplit ou vide d'air, suivant qu'il veut descendre ou monter; il peut ainsi, sans perdre ni son lest ni son gaz, se placer dans la couche d'air qui lui paraît la plus propre à le faire arriver à son but.

Enfin ce sera au milieu d'un concours immense de spectateurs réunis au Champ-de-Mars que M. Lenox, son épouse et quinze autres personnes, s'élèveront dans les airs: outre cela le ballon sera chargé de provisions, de nombreux instrumens de physique, de deux pompes de compression et de tout l'attirail nécessaire aux manœuvres du navire: avec un vent favorable, deux heures lui serviront pour se rendre à Londres, qui est à 98 lieues de Paris.

NOTA. Le Ballon parcourra d'abord le dimanche les boulevards, quelques communes environnantes, et le lundi partira pour son voyage de long cours à Londres.

PARIS. — IMPRIMERIE LE NORMANT, RUE DE SEINE, N° 8, F. S. G.

sées de manière à aller successivement on simultanément en sens contraire pour produire l'effet du gouvernail. Voici comment les nouveaux aéronautes pourront faire monter et descendre leur ballon sans jeter de lest et sans perdre de gaz. Dès 1787, le baron Scott et M. Mennier de l'académie des sciences, avaient observé que la vessie natatoire, qui se trouve dans le corps des poissons, avait la propriété de leur permettre de descendre au fond de l'eau ou de s'élever à sa surface, selon qu'ils la compriment ou qu'ils la laissent se dilater; c'est une conséquence de ce fait que l'air comprimé est plus lourd que l'air dilaté.

Par imitation de ce phénomène, les nouveaux aéronautes ont imaginé d'introduire dans leur grand ballon particulier, qui, selon la quantité d'air extérieur qu'on y introduira, produira sur la pesanteur du grand ballon une indifférence de trente livres en plus ou moins. Or, pour qu'un ballon s'élève, il suffit qu'il pèse une demi livre de moins que s'il était rempli d'air atmosphérique.

La faculté de donner au ballon un poids de trente livres en plus ou en moins est donc un immense moyen mis à la disposition des nouveaux aéronautes pour s'élever ou s'abaisser à volonté dans la couche d'air qu'il leur conviendra de choisir.

Ils ont en outre la prétention de pouvoir influer sur le mouvement ascendant ou descendant de leur ballon en présentant alternativement chaque roue et chaque gouvernail dans une direction qui tendra à les faire monter ou descendre, à l'imitation des oiseaux qui ne vont point en ligne droite contre le vent, mais qui louvoient dans l'air en s'élevant et s'abaissant dans les directions inclinées.

Dans ce système, le navire aérien louvoierait par des mouvemens inclinés alternativement de haut en bas, tandis que les vaisseaux louvoient par des mouvemens horizontaux de droite à gauche, et réciproquement.

La possibilité de s'élever et de s'abaisser à volonté dans l'air respirable étant admise, on pourrait dès lors choisir la couche d'air la plus favorable à la route que l'on voudrait suivre.

Les nouveaux aéronautes prétendent que, dans les ascensions qu'ils ont faites, ils ont remarqué que dans l'air respirable, qui comprend une espace de 5,000 à 5,500 toises, il y presque toujours deux ou trois courans d'air se dirigeant dans des sens différens. Le même phénomène aurait été observé pour le courant d'eau, lors des essais de navigation sous marine qui ont été faits dans ces derniers temps.

Si tous les courans d'air leur étaient contraires, ils se placeraient alors entre deux couches opposés où ils prétendent qu'ils trouveraient un air à l'état de remous, dans lequel ils pourraient naviguer avec une vitesse de 2 à 5 lieues à l'heure, à l'aide des roues adaptées à leur nacelle.

Il paraît qu'outre le moyen de direction que nous venons d'indiquer, ils en auront encore un dont ils conservent le secret, mais qui, d'après le peu qu'ils en ont dit, me paraît consister à créer à l'aide de soufflets de leur invention, des courans d'air assez rapides pour faire des points d'appui à chaque roue et à chaque gouvernail.

S'ils pouvaient se placer entre deux vents de directions différentes, ils avanceraient avec une vitesse de 2 à 5 lieues à l'heure, où ils resteraient sédentaires, attendant un vent favorable; ou bien encore, s'ils ne trouvaient qu'un vent absolument contraire, ils louvoieraient en décrivant des lignes courbes de haut en bas, dans le courant d'air où ils se trouveraient, à la manière des oiseaux qui veulent aller contre le vent.

En cas de long séjour dans un navire aérien, il paraît que le poids du gaz perdu serait inférieur au poids des alimens consommés par les passagers, et que, par conséquent, le ballon aurait la même force d'ascension que lors de son départ.

Les nouveaux aéronautes emporteront avec eux une boussole, un baromètre, un électromètre, un thermomètre, et un instrument remplaçant le loch des navires, qui leur servira à mesurer la vitesse verticale et la vitesse horizontale.

Ils se pourvoiront aussi d'une lampe à la Davy, et d'une lanterne sourde phosphorique, qui, sans présenter le danger de mettre le feu au ballon, leur donneront une clarté suffisante pour lire et écrire.

Ainsi voici en deux mots quels seraient leurs moyens de direction: ils chercheraient une couche d'air qui les porterait où ils voudrait se diriger, et s'ils la trouvaient, ils pourraient s'y rendre avec une vitesse moyenne de 10 à 12 lieues à l'heure et souvent avec une vitesse de 35 à 40 lieues à l'heure. Dans les Antilles, il y a des courans d'air d'une vitesse de cent lieues à l'heure.

Parmi les personnes qui doivent prendre part à la première ascension, on cite les personnes suivantes, M. de Lannox, ancien officier supérieur; M. Orsi, jeune italien; M. Guilbert, inventeur de tissus imperméables que le gouvernement emploie à l'usage de l'armée; M. Ajasson de Grandsagne, professeur de physique dans un collège royal; M. Laurent, jeune physicien, attaché à l'instruction publique; M. Edan, homme de lettres. Mmes de Lannox et Edan accompagnent leurs maris dans ce périlleux voyage.

Imprimerie de Appert et Bacquenois, rue Christine, N. 2.

Sketch
of the
AERIAL SHIP,
Drawn by Eagles.

On the Plan

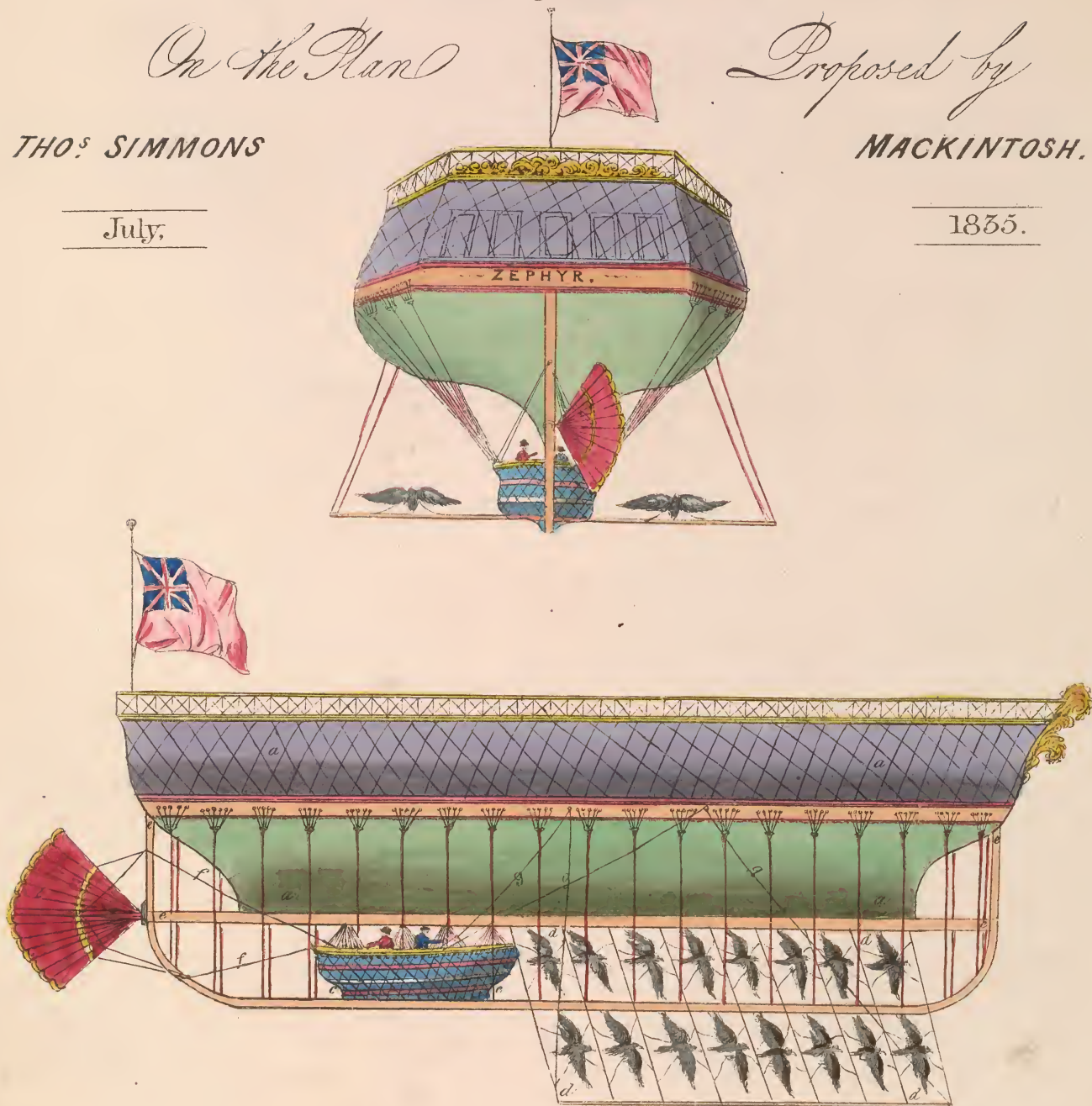
Proposed by

THO.^s SIMMONS

MACKINTOSH.

July.

1855.



REFERENCES.

a. a. Body of the Balloon — b. Rudder — c. Car — d. d. Bird-frame — e. e. Frame of the Balloon — ff. Rigging of the Rudder —
g. g. Rigging of the Bird-frame.

M^r Mackintosh proposes to construct a Balloon, of the form represented above, large enough to carry two persons, and to attach to it a sufficient number of Eagles, Hawks, Pigeons, or other large Birds; and in this manner, he is satisfied, from experiments he has made, that, in moderately calm weather the Balloon may be conducted in any direction that is desired. — See Morn^g Advertiser, July 3rd 1855.

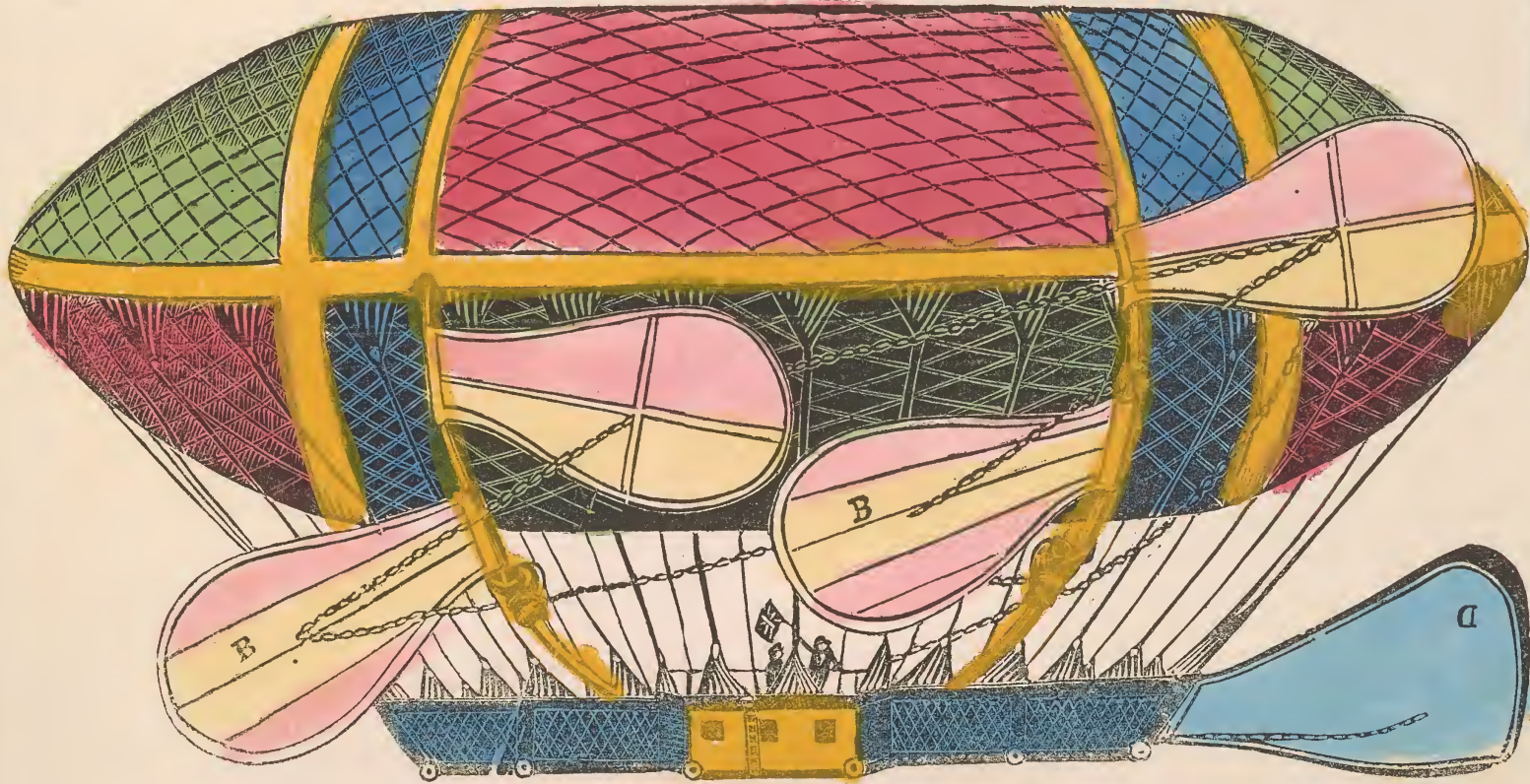
Published for the Proprietor by S. W. Fores, Sporting Repository, 41, Piccadilly, Gilbert & Co, 52, Paternoster Row, J. H. Storie, 59, Museum Street, Bloomsbury.

London, Edinburgh,

Senefelderian Press, Holborn Bars, London.

Antique Street Hall.

AN EXACT REPRESENTATION OF THE
FIRST AERIAL SHIP,
The Eagle,
NOW EXHIBITING IN THE GROUNDS OF THE
AERONAUTICAL SOCIETY,
Victoria Road, facing Kensington Gardens.



This stupendous Machine is 160 feet long, 50 high, and 40 wide, constructed for establishing a direct Communication between the Capitals of Europe. The first experiment of this new system of Aerial Navigation will be made from London to Paris, and back again, early in August.

A The Body of the Vessel, in the construction of which upwards of 2100 yards of lawn has been consumed, and is capable of containing 2700 cubic feet of gas. There are four wings on each side marked B, made with moveable flaps, with nett work on one side to support them whilst propelling the Vessel.

C The Cabin which contains the machinery for working the wings.

D The Rudder

E The extremities of the Car, which is made of wood, and is 75 feet long, and six wide, strongly secured on all sides by netting.

ROYAL STANDARD

TAVERN

AND

PLEASURE
GROUNDS,



SHEPHERDESS

WALK,

CITY ROAD.

Licensed pursuant to Act of Parliament of the 25th of King George the Second.
H. BRADING, PROPRIETOR.

Extraordinary Attraction!

FOR THE

BENEFIT OF MR. GYPSON, The Nocturnal Aeronaut, who will make AN EQUESTRIAN BALLOON ASCENT On MONDAY, Sept. 2nd, 1839.

This will be the First Equestrian Flight this Ten Years, and positively the Last Ascent that will take place at these Grounds this Season.
The Arrangements under the Superintendence of Mr. GREEN.

MR. DUCROW

HAD KINDLY OFFERED THE USE OF HIS

CELEBRATED PONY, "FIRE-FLY,"

But in consequence of an accident, the above Arabian has been procured for the purpose.

H. B. respectfully informs his numerous Visitors, that, at the solicitation of some of his most intimate Friends, the Balloon on this occasion, will be inflated in the Gardens, in order that the Company may have an opportunity of witnessing the same.

During the Inflation there will be a succession of Amusement; and in the course of the Evening the following Entertainments:

PROGRAMME.

PART I.

Overture—

Opening Chorus—The Chough and Crow	By the Company
Song—Pretty Mocking Bird	Miss Stansbury
Song, Irish—Paddy Carey	Mr. Starmer
Song—Calais Shrimp Girl	Mrs. Andrews
Song—The Cottage Maid	Mr. Plumpton
Song—I should very much like to know	Mrs. Fitzgerald

Guy Mannering.

By the Band.

Song—Such a gitting up Stairs	Mr. Smith, the English Jim Crow
Song—The Sapling Oak	Mr. Fortescue
Song—Auld Robin Gray	Miss Stansbury
Song, Comic—The Air Balloon	Mr. T. Jones
Glee—The Curfew Bell	Miss Stansbury, Mrs. Fitzgerald, and Mr. Fortescue

Classical Tableaux, or Gymnastic Feats - by the Brothers Laurent.

Comic Clog Dance - Mr. ANDREWS.
Highland Fling - Miss NATHAN.

After which, (for the second time here,) the laughable Entertainment, entitled

BURIED AND NOT BURIED:

Or, a Ghost in spite of Himself.

Mr. Nicodemus, Mr. TAYLOR.	Captain Vauntington, Mr. PLUMPTON.	Squire Aldwinkle, Mr. STARMER.
Dickory - Mr. T. JONES.	Paul - Mr. SMITH.	Servants, - Messrs. GARDNER & CLEMENTS.
Miss Aldwinkle - Mrs. ANDREWS.	Lavinia (her Cousin,) Mrs. TAYLOR.	

PART II.

Overture—

Glee—Ye Banks and Braes	Miss Stansbury, Mrs. Fitzgerald, & Mr. Fortescue
Song—Mary,	Mr. Plumpton
Nigger Song—Jim Brown	Mr. Smith, the English Jim Crow
Song—The Vine Feast	Miss Stansbury

Tancredi.

By the Band.

Song, Comic—Irish Schoolmaster	Mr. Starmer
Song—To the gay Tournament	Mrs. Fitzgerald
Song, Comic—Billy Crow and Miss Watsso	Mr. T. Jones
Duet—All's well	Mr. Fortescue and Mr. Plumpton

To which will be added, the much-admired Pantomimic Spectacle, entitled the

RED INDIAN: OR, THE DOG OF THE WRECK.

In which Mr. ANDREWS'S Celebrated Dog, VICTOR, will appear.

Lieutenant Morton	Mr. TAYLOR.	Jack Jib,	Mr. T. JONES.
Paraboo,	ABDEL LAURENT.	Chuckawa,	ALTO LAURENT.
Lilla	(Morton's Wife,) Mlle. HENRI LAURENT.	Whiskewam,	HENRI LAURENT.
		Jack Hallyard,	Mr. CLEMENTS.
		Child	Miss NATHAN.

INDIAN WAR DANCE.

Terrific Combat by Pattipaw and Morton. Combat of Four.

The whole will conclude with a most

SPLENDID DISPLAY OF FIRE-WORKS

BY THAT CELEBRATED ARTIST, DARBY.

The Gardens will be brilliantly Illuminated with various Coloured Lamps.

Doors Open at ONE o'Clock.
Admission to the whole, One Shilling.

Balloon Ascent at FIVE.
After the Ascent, SIXPENCE.

ROYAL STANDARD

Tavern and Pleasure Grounds,
SHEPHERDESS WALK,
CITY ROAD.

Licensed pursuant to Act of Parliament of the 25th
of King George the Second.
H. BRADING, Proprietor.

EXTRAORDINARY ATTRACTION!

Mr. GYPSON,

The Nocturnal Aeronaut, will make a

BALLOON

ASCENT,

ON

HORSE-BACK,

On Monday, Sept. 2. 1839

*This will be the First Equestrian Flight this Ten
Years, and positively the Last Ascent that will take
place at these Grounds this Season.*

The Arrangements under the Superintendence of
Mr. GREEN.

MR. DUCROW

Had kindly offered the use of his

CELEBRATED PONY, "FIRE-FLY,"

*But in consequence of an Accident, the above
Arabian has been procured for the purpose.*

H. B. respectfully informs his numerous Visitors,
that, at the solicitation of some of his most intimate
Friends, the Balloon on this occasion, will be
inflated in the Gardens, in order that the Company
may have an opportunity of witnessing the same.

*During the Inflation there will be a succession of
Amusement; and in the course of the Evening the
following Entertainments:*

GRAND CONCERT

Of Vocal and Instrumental Music.

NEW VAUDEVILLE. CLASSICAL TABLEAUX.

The Celebrated English

JIM CROW

The Laughable Ballet of Action,

SNIP versus SNOB

A VARIETY OF

DANCING,

&c. &c.

To Conclude with a

GRAND DISPLAY

OF

FIRE-WORKS!

The whole under the Direction of **Mr. T. Jones,**

*The Gardens will be brilliantly Illuminated with
various Coloured Lamps.*

Doors open at ONE—Balloon Ascent at FIVE.

**Admission to the whole, 1s.
Or after the Ascent, 6d.**

FOR PARTICULARS SEE BILLS OF THE DAY.

Personage, Printer, 1, Wilderness Row, Goswell-st.

ROYAL STANDARD

Tavern and Pleasure Grounds,
SHEPHERDESS WALK,
CITY ROAD.

Licensed pursuant to Act of Parliament Of the
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GRAND CONCERT

Of Vocal and Instrumental Music.

NEW VAUDEVILLE.

Classical Tableaux of the First Fratricide!
Surpassing any thing of the kind ever attempted.

The Celebrated English

JIM CROW!

The admired Ballet, of

THE RED INDIAN,

In which, the

Celebrated Dog, Victor,

*Will appear,—to the astonishment of every Beholder,
protecting his Master in Four different Scenes.*

A Variety of Dancing, &c. &c.

To conclude with a Grand Display of

FIRE-WORKS!

The whole under the Direction of **Mr. T. Jones**

*The Gardens will be brilliantly Illuminated with
various Colored Lamps.*

Doors open at ONE—Balloon Ascent at FIVE.

**Admission to the whole, 1s.
Or after the Ascent, 6d.**

FOR PARTICULARS SEE BILLS OF THE DAY.

Personage, Printer, 1, Wilderness Row, Goswell-St.

EXTRAORDINARY NOVELTY!!

OPENING OF THE BARKING GAS WORKS.

WITH A

BALLOON
MR.



ASCENT !!
GYPSON

WILL MAKE A

BALLOON ASCENT

In his Splendid

Nocturnal

BALLOON,

FROM THE

Yard of the Gas Works,

At Two o'Clock, on Tuesday, September 17, 1839.

This extraordinary Balloon (with which Mr. Gypson made his Night Voyage on June 3,) is composed of 1800 Yards of the Richest Silk, in alternate Colours of Crimson and Gold, is 70 ft. high, 40 ft. diameter, and contains 30,000 cubic feet of Gas: its size and appearance when fully inflated must astonish every Spectator.

AN EXCELLENT BAND WILL BE PROVIDED FOR THE OCCASION.

DOORS OPEN AT TWELVE, ASCENT AT TWO.

Admission, 1s.—Children under 12 Years, Half Price.

PENN, Printer, High Street. Barking.

BALLOON ASCENT.—Tuesday night being appointed for lighting the town of Barking, Essex, for the first time with gas, the day was spent with much festivity by its inhabitants. For some days previously large handbills were posted about the place, announcing that Mr. Gibson would make his ascent on that evening in his "grand balloon," and all doubts on this head were removed by several witnessing the process of inflation at the works lately built by the Barking Gas and Coke Company. Notwithstanding the unfavourable state of the weather, vast crowds of persons assembled in the course of the afternoon to witness a scene to that part of the country perfectly novel. The work of inflation being completed, at four o'clock Mr. Gibson, a friend, and a Mr. Plows, a respectable tradesman in the place, got into the car. As the ponderous machine was gently swinging about, one of its sides struck against one of the poles fixed alongside and slightly damaged it. Mr. Plows perceiving this very prudently made the best of his way out, while Mr. Gibson and his companion called out to let the balloon go; and, their wishes being complied with, the machine ascended, but not to any great altitude. It proceeded for about half a mile, when it appeared evident to the spectators that the gas was fast escaping. On approaching the earth it became considerably collapsed, and ultimately fell with great velocity. The balloon fortunately fell in a turnip field belonging to Mr. Hunsdon, at Uphall, and the aeronauts managed to escape unhurt. — 19 September 1839

THE BALLOON ASCENT AT BARKING.

We insert, at the request of Mr. Gypson, the following account of his recent balloon ascent at Barking, as he complains of several inaccuracies in the paragraph copied from a country paper last week:—

"The injury the balloon received by being blown against a pole, being below the equator, I had still sufficient ascending power to make a perpendicular ascent of at least half a mile, and having long entertained an opinion that it was possible to convert the balloon into a parachute in case of emergency, I determined to avail myself of the existing opportunity, knowing as I did that my friends in Barking had expressed a wish to be gratified with a sight of the descent. Accordingly, I made myself master of the upper valve line while I unconnected the lines of the safety valve, and immediately threw all the uninflated silk of the lower hemisphere into the upper hemisphere, forming a stupendous convexity above my head, with which myself and my companion commenced a somewhat rapid but perfectly safe descent. Finding that I was approaching a fine crop of turnips, I threw out a considerable quantity of sand, and gently skimmed into a field adjoining without the least injury being done; remaining firm in my opinion that it is perfectly practical to combine the balloon with the parachute without the use or weight of the latter, in the event of approaching the sea, a wood, or buildings of any description, inasmuch as the uninflated portion of the silk forms a considerable convexity, while the inflated adds much to the success of the experiment, and checks a violent descent of the whole apparatus."

Sept. 26. 1839

BY PERMISSION,
AND UNDER THE PATRONAGE OF
THE MOST WORSHIPFUL
The Mayor.



GRAND BALLOON ASCENT!

From the Yard of the
BEDFORD

**GAS COMPANY,
MR. GYPSON**

Will make his Sixteenth Ascent

IN HIS
**MAGNIFICENT
NOCTURNAL
BALLOON,**

On **FRIDAY** Afternoon Next,
May the 1st, 1840, at **4 o'clock.**

This extraordinary Machine, in which Mr. G. made his Nocturnal Voyage, on June 3rd, 1839, is composed of 1800 yards of the richest Silk, in alternate colors of Crimson and Gold. It stands 60-feet high, is 36-feet in diameter, and contains 20,000 cubic feet of Gas,—and is calculated to excite the astonishment of every beholder!

An excellent Band is engaged for the occasion, and the Police will be in attendance.

** Admission to witness the Inflation and Ascent
On the Elevated Stage, 2s. 6d.
Fore Ground, 2s. Back Ground, 1s.

Tickets for the Elevated Stage may be
obtained at the Printers.

The Balloon, partly inflated with Atmospheric Air, will be exhibited at Mr. King's Long Room, New Inn, Tavistock Street, on Wednesday and Thursday next, together with the Car and Appendages. A Glass will be inserted to exhibit the Interior of the Balloon.

Admission 6d. each. Children Half-price.

HILL & SON, PRINTERS, SILVER-STREET, BEDFORD.

BY PERMISSION,
And under the Patronage of the
Most Worshipful the Mayor.



GRAND BALLOON ASCENT!

From the Grounds of the
BEDFORD

**GAS COMPANY,
MR. GYPSON**

Will make his Seventeenth Ascent

IN HIS
**MAGNIFICENT
NOCTURNAL
BALLOON,**

On **SATURDAY** Afternoon Next,
May the 9th, 1840,

Doors open at Three. Ascent at Five o'clock.

A Lady and Two Gentlemen will accompany Mr. G.

This extraordinary Machine, in which Mr. G. made his Nocturnal Voyage, on June 3rd, 1839, is composed of 1800 yards of the richest Silk, in alternate colors of Crimson and Gold. It stands 60-feet high, is 36-feet in diameter, and contains 20,000 cubic feet of Gas,—and is calculated to excite the astonishment of every beholder!

An excellent Band is engaged for the occasion, and the Police will be in attendance.

Admission to witness the Inflation and Ascent, 2s.
Reserved Seats for Ladies.

Tickets may be obtained at the Printers,
And at the Bar of the following Inns,—the
Swan, George, Red Lion, Rose, New Inn,
Kings-Arms, Horse-and-Jockey, & Hop-Pole.

HILL & SON, PRINTERS, SILVER-STREET, BEDFORD.



1840

GRAND BALLOON ASCENT.

UNDER THE PATRONAGE OF THE MAYOR.

MR. GYPSON,

HAS the honour to announce that he will make his second ascent with his magnificent Balloon from the grounds of the Bedford Gas Company, THIS DAY, SATURDAY, May 9, at 5 o'clock in the afternoon, precisely, accompanied by a Lady and two Gentlemen of Bedford, it being his seventeenth aerial voyage. Doors open at three—ascend at 5 o'clock. An excellent band is engaged for the occasion; and the police will be in attendance. Admission to witness the inflation and ascent 2s. Reserved seats for ladies.

THE BALLOON ASCENT.—Another ascent of Mr. Gypson's balloon is advertised to take place this day, which we hope will be well patronised. We have received an account of the aerial voyage from the aeronaut, Mr. Gypson, which we give in his own words:—

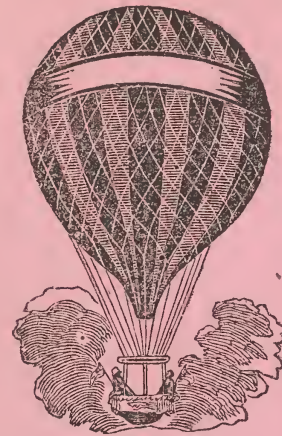
"All our preparations for the voyage being completed, I entered the car (accompanied by my friend, Mr. W. Adams,) for the purpose of trying the ascending power of the balloon, and finding the car somewhat too heavily laden. I put out nearly 40 lbs. of ballast, and gave the word to let go; upon which the machine immediately darted upwards, but being acted on at the moment of starting by a brisk breeze from the N. E., her course was more inclined to the horizontal than the perpendicular direction, passing over the beautiful and highly cultivated grounds of Dr. Brereton, and bearing in the direction of Kempston, it was very evident that the lower current would have carried the balloon to Newport Pagnell, but wishing to attain a higher elevation, I relieved the machine of another bag of ballast, and she winged her way aloft in the grandest style imaginable. From the position of the Gas Works, I perceived that we were now changing our course, in fact, the wind above was full east, and we were driven in a direct line towards the setting sun with singular exactness, for as the car revolved round in the vast element in which it was floating, it invariably presented a straight line with the great luminary of the universe. 15 minutes had now elapsed in attaching the grappling iron and cable, and arranging the safety valve, to be prepared for the expansion of the gas; the view at this period was beautiful beyond description, and defies all the language of man to convey the least idea of its perfect sublimity—and equally with the tongue of man must fail that silent utterer of sounds, the pen, or that effective sketcher of scenes, the pencil, all are in fact unequal to the task where—

Bedford Mercury, May 9, 1840.
'We gaze, and turn away, and know not where:
Dazzled and drunk with beauty, till the heart
Reels with its fulness.'

We were now over Olney, in Buckinghamshire, the balloon still ascending, and gaining additional power, in consequence of following the course of the sun, which caused a great expansion of the gas. Our voyage was perfectly cloudless, and to the very verge of the horizon the same undiminished beauty and magnificence prevailed, and that with all the sensations of ease and safety; for it is in the car of the balloon alone, entirely isolated, that all symptoms of giddiness disappear, for a single rope connecting the balloon with the earth would case the same sensations as are felt from church steeples and other high eminences. We had now the elevation of two miles, and I began to think of effecting a descent, but the country throughout our voyage was very woody and unfavourable. I had up to this time, 7 o'clock, parted with seven or eight hundred feet of gas, in order to check the expansion. Our voyage had now lasted 35 minutes, and the dew was falling heavily about the balloon, car, and cordage, so much so, that we could wipe it off in a stream; my friend, Mr. Adams, in the hurry of the moment, left his coat behind him, and felt the cold considerably. The balloon, which had been swelled to its utmost extent by the expansion, now became suddenly condensed, and gave us what is termed a descending power, during which Lord Northampton's seat, at Castle Ashby, was seen very plain in its circle of beautiful lofty trees. We now lowered the irons to effect a descent, which took hold in the centre of a large meadow this side of Little Houghton, in Northamptonshire, but the persons in the meadow being very timid, allowed us to drift several meadows further, in one of which I crippled the power of the balloon by opening the valve, and reached the earth in perfect safety on the farm of Mr. Tallent, at Little-Houghton, by whom we were most hospitably entertained, and reached Bedford at 12 o'clock the same night, when Bedford had resumed its accustomed quietness, and the thousands of individuals that cheered our ascent had retired to repose.—I beg to state no fault can rest with either the engineer or company in consequence of the balloon not being full, for had I commenced three hours earlier the inflation would have been a full compliment, which I intend to be the case this day, and ascend at 5 o'clock precisely."

**Positively the Last Ascent
from BEDFORD.**

Under the Patronage of the Most
Worshipful the Mayor.



MR. GYPSON

Will make his THIRD

**BALLOON
ASCENT**

From the Grounds of the
BEDFORD

GAS COMPANY,

On SATURDAY Afternoon Next,
May the 16th, 1840,

AT FIVE O'CLOCK PRECISELY.

When the Balloon has attained a considerable
elevation

Madame Grimalkin

Will descend in a

PARACHUTE.

*As Two Ladies and Four Gentlemen have
expressed anxiety to accompany Mr. G., an early
application for Seats in the CAR is necessary.*

Admission to witness the Inflation and Ascent
ONE Shilling each.

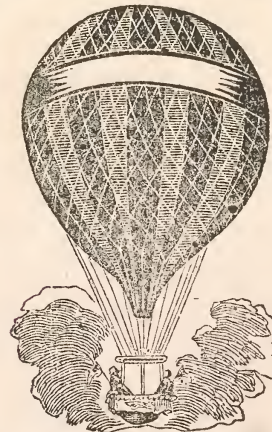
Mr. G. trusts that the muster of his
Friends on this occasion will com-
pensate him for the extremely low
price of admission.

HILL & SON, PRINTERS, SILVER-STREET, BEDFORD.

Public Notice.

At the particular request of some of
the Members of the Town Council,
(two of whom accompanied Mr. Gyp-
son in his last Ascent,) he is induced
to announce one more

BALLOON



ASCENT

From the Grounds of the
BEDFORD

GAS COMPANY,

On SATURDAY Afternoon Next,
May the 23rd, 1840,

AT FIVE O'CLOCK PRECISELY,

in order to gratify as many Gentle-
men of the Town Council with a
Voyage as the Balloon will possibly
carry, and positively the last from
Bedford. Mr. G. is only induced to
make another Ascent in order to gra-
tify the Gentlemen above mentioned.

In consequence of the universal ap-
probation expressed at the descent
of the

PARACHUTE

that experiment will be again
repeated.

Admission to witness the Inflation and Ascent
ONE Shilling each.

An excellent Band is engaged for the Occasion.

Mr. G. trusts the low price of admis-
sion will give him a bumper at his
farewell Ascent from Bedford.

HILL & SON, PRINTERS, SILVER-STREET, BEDFORD.

UNDER THE PATRONAGE
OF THE MAGISTRATES,
And a Committee of Gentlemen.



**GRAND
BALLOON
ASCENT!**

MR. GYPSON,

Who has given such general satisfaction by his Four
Ascents from Bedford.

Will make his Nineteenth Ascent

From a spacious ground at the back of the Hind Hotel

WELLINGBORO.'
On Thursday afternoon
JUNE 11th 1840,

WITH HIS
**MAGNIFICENT
NOCTURNAL
BALLOON,**

At a great elevation Mr. G. will detach
a Parachute containing a living animal.

Doors open at Two, Ascent at Five o'clock.

Admittance to witness the inflation &c. 1s.

This extraordinary Machine, in which Mr.
G. made his Nocturnal Voyage, on June 3rd
1839, is composed of 1800 yards of the rich-
est Silk, in alternate colors of Crimson and
Gold. It stands 60-feet high, is 36-feet in
diameter, and contains 20,000 cubic-feet of
Gas,—and is calculated to excite the aston-
ishment of every beholder!

☞ An excellent Band is engaged for the
occasion, and the Police will be in attend-
ance.

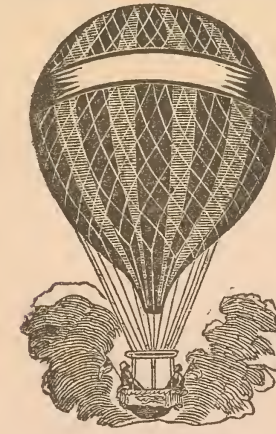
Admission during Wednesday to witness
the process of inflation, and inspect the Car,
appendages and apparatus, 6d. each.

Reserved seats for Ladies 2s. each. Ticket
for which can only be obtained at Mr. Whit-
ten's Printing Office.

Terms for seats in the car to be had of Mr.
Gypson on the ground.

WHITTEN, PRINTER.

BY PARTICULAR DESIRE.



SECOND

And positively the last GRAND

**BALLOON
ASCENT!**

MR. GYPSON,

Who has given such general satisfaction by his Four
Ascents from Bedford.

Will make his Twentieth Ascent

From a spacious ground at the back of the Hind Hotel

WELLINGBORO.'
On Wednesday evening
JUNE 17th 1840,

WITH HIS
**MAGNIFICENT
NOCTURNAL
BALLOON,**

At a great elevation Mr. G. will detach
a Parachute containing a living animal.

Doors open at Two, Ascent at Five o'clock.

Admittance to witness the inflation &c. 1s.

This extraordinary Machine, in which Mr.
G. made his Nocturnal Voyage, on June 3rd
1839, is composed of 1800 yards of the rich-
est Silk, in alternate colors of Crimson and
Gold. It stands 60-feet high, is 36-feet in
diameter, and contains 20,000 cubic-feet of
Gas,—and is calculated to excite the aston-
ishment of every beholder!

☞ An excellent Band is engaged for the
occasion, and the Police will be in attend-
ance.

Admission during Tuesday to witness
the process of inflation, and inspect the Car,
appendages and apparatus, 6d. each.

Reserved seats for Ladies 2s. each. Ticket
for which can only be obtained at Mr. Whit-
ten's Printing Office.

Terms for seats in the car to be had of Mr.
Gypson on the ground.

WHITTEN, PRINTER.

By Permission and under the Patronage of
the most Worshipful

THE MAYOR,

And a Committee of Gentlemen.

**GRAND
BALLOON
ASCENT!!**

MR. GYPSON,

Who has given such general satisfaction by his Ascents
from Bedford, and neighbourhood.

Will make his Twentieth Ascent
From the premises of the GAS WORKS

NORTHAMPTON

On Thursday Afternoon,

JULY 16th, 1840,

WITH HIS

MAGNIFICENT

NOCTURNAL

BALLOON.

At a great elevation Mr. G. will detach
a Parachute containing a living animal.

Doors open at Two, Ascent at Five o'clock.

Admittance to witness the inflation &c. 1s.

This extraordinary Machine, in which Mr.
G. made his Nocturnal Voyage, on June 3d
1839, is composed of 1800 yards of the rich-
est Silk, in alternate colors of Crimson and
Gold. It stands 60-feet high, is 36-feet in
diameter, and contains 20,000 cubic feet of
Gas; and is calculated to excite the aston-
ishment of every beholder!

☞ An excellent Band will be provided
and the Police will be in attendance.

Reserved Seats for Ladies 2s. each. Tic-
kets can be obtained at all the Booksellers.

It is requested that Tickets will be pro-
cured previous to the day of Ascent.

Terms for seats in the car to be had of Mr.
Gypson on the ground. Mr. G. has had
the honor of conveying 16 gentlemen safely
on terra-firma, which removes any fear that
might be entertained of a safe descent.

Cordeux, Printer.

By Permission and under the Patronage of
the most Worshipful **The Mayor**, and
a Committee of Gentlemen.



SECOND BALLOON ASCENT!

FROM

**NORTHAMPTON.
MR. GYPSON,**

Who has given such general satisfaction by his Ascents
from Bedford, and neighbourhood.

Will make his *Twenty-first Ascent*,
from the premises of the GAS WORKS,
On Thursday Afternoon,
JULY 23d, 1840,

WITH HIS

**MAGNIFICENT
NOCTURNAL
BALLOON.**

At a great elevation Mr. G. will detach
a Parachute containing a living animal

Doors open at Two, Ascent at Five o'Clock.
Admission to witness the inflation &c. 1s.

This extraordinary Machine, in which Mr.
G. made his Nocturnal Voyage, on June 3d,
1839, is composed of 1800 yards of the rich-
est Silk, in alternate colors, of Crimson and
Gold. It stands 60 feet high, is 36-feet in
diameter, and contains 20,000 cubic feet of
Gas; and is calculated to excite the aston-
ishment of every beholder!

☞ An excellent Band will be provided,
and the Police will be in attendance.

Reserved Seats for Ladies, 2s. each.
Tickets may be obtained at all the Book-
sellers.

Terms for Seats in the car, to be had of Mr. G. on the
ground.—Mr. G. has had the honor of conveying
18 Gentlemen safely on terra firma, which removes any
fear that might be entertained of a safe descent.

By Permission and under the Patronage of
the most Worshipful **The Mayor**.



THIRD BALLOON ASCENT!

FROM

**NORTHAMPTON.
MR. GYPSON,**

Who has given such general satisfaction by his Ascents
from Bedford, and neighbourhood, at the particular re-
quest of several Gentlemen, two of whom will accom-
pany him, is induced to make his **TWENTY-SE-
COND ASCENT**, from the premises of the GAS
WORKS,

On Saturday Afternoon,
AUGUST 1st, 1840,

WITH HIS

**MAGNIFICENT
SILK
BALLOON,**

Being the last from Northampton.

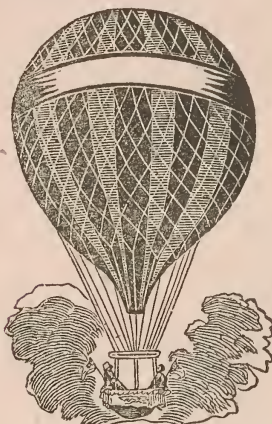
At a great elevation Mr. G. will detach
a Parachute containing a living animal
For the convenience of Gentlemen attending the mar-
ket, the Ascent will take place at 4 for 5 precisely
Admission to witness the inflation &c. 1s.

This extraordinary Machine, in which Mr.
G. made his Nocturnal Voyage, on June 3d,
1839, is composed of 1800 yards of the rich-
est Silk, in alternate colors, of Crimson and
Gold. It stands 60 feet high, is 36-feet in
diameter, and contains 20,000 cubic feet of
Gas; and is calculated to excite the aston-
ishment of every beholder!

☞ An excellent Band will be provided,
and the Police will be in attendance.

Terms for Seats in the car, to be had of Mr. G. on the
ground.—Mr. G. has had the honor of conveying
20 Gentlemen safely to terra firma, which removes any
fear that might be entertained of a safe descent.

By Permission and under the Patronage of
the most Worshipful **The Mayor**, and
a Committee of Gentlemen.



GRAND BALLOON ASCENT!

MR. GYPSON,

Who has given such general satisfaction by his Ascents
from Bedford, and neighbourhood.

Will make his *Twentieth Ascent*,
from the premises of the GAS WORKS,

**NORTHAMPTON,
On Thursday Afternoon,**
JULY 16th, 1840,

WITH HIS

**MAGNIFICENT
NOCTURNAL
BALLOON.**

At a great elevation Mr. G. will detach
a Parachute containing a living animal

Doors open at Two, Ascent at Five o'Clock.
Admission to witness the inflation &c. 1s.

This extraordinary Machine, in which Mr.
G. made his Nocturnal Voyage, on June 3d,
1839, is composed of 1800 yards of the rich-
est Silk, in alternate colors, of Crimson and
Gold. It stands 60 feet high, is 36-feet in
diameter, and contains 20,000 cubic feet of
Gas; and is calculated to excite the aston-
ishment of every beholder!

☞ An excellent Band will be provided,
and the Police will be in attendance.

Reserved Seats for Ladies, 2s. each.
Tickets may be obtained at all the Book-
sellers.

Terms for Seats in the car, to be had of Mr. G. on the
ground.—Mr. G. has had the honor of conveying
16 Gentlemen safely on terra firma, which removes any
fear that might be entertained of a safe descent.

July 16. 1840

BALLOON ASCENT.—On Thursday last a vast concourse of
persons assembled in the streets and fields adjoining the gas works
in this town, to witness the ascent of Mr. Gypson's Balloon.
The operation of filling was completed about seven o'clock,
when the party engaged in the expedition, consisting of (besides
Mr. Gypson himself) Mr. Dickens, of the Black Boy Inn, and
Mr. Elkington, of the Northamptonshire Banking Company,
entered the car, and the huge machine released from the cords
which had hitherto detained it bounded upwards almost perpen-
dicularly, to the appropriate air, played by a very efficient brass
band, of "Sitch a getting up stairs," and the National Anthem.
We never saw a more perfect and beautiful ascent. The aeronauts
acknowledged the shouts of the friends they left behind them, by
a waving of handkerchiefs and bouquets until they were no longer
visible. In a few minutes afterwards a small parachute, contain-
ing a young rabbit was set adrift; it descended very easily and
was never lost sight of by thousands who pursued it to the spot
where it fell, at Little Houghton. The balloon itself pursued its
steady but rapid way in an easterly direction, and ultimately de-
scended at Radwell, Beds. Mr. Gypson having favoured us with
an account of his trip we shall give it in his own words:—

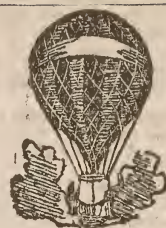
"In consequence of the excellent arrangements at the gas
works, by which a most ample supply of gas was ensured, there
was no necessity for commencing the inflation till two in the after-
noon, and the uniform pressure continued from that time com-
pleted the filling of the balloon by giving me a beautiful ascending
power. Everything being ready my companions of the voyage,
Mr. Dickens, of the Black Boy Inn, and Mr. Elkington stepped
into the car, amidst the shouts of the company, and the word

being given the balloon rose in fine order, blown by a steady weat-
erly wind. Having arranged the safety valve in order to be pre-
pared for the expansion of the gas I parted with the parachute and
basket, containing a beautiful little milk-white rabbit, which de-
scended very steadily at Little Houghton. We were very soon
over the delightful seat of the Marquis of Northampton, at Castle
Ashby, and my companions were in raptures at the beauty
of the highly cultivated grounds, and the prospects of the ad-
joining neighbourhood. The balloon rapidly ascending quickly
gave us an elevation of two miles, the clouds rolling beneath us;
but my companions not wishing to lose the beauty of the pros-
pects I opened the valve, and quickly left the clouds above.—
Pursuing a very steady and beautiful course for 63 minutes we
commenced the descent and ended with perfect safety on Mr.
Swannell's farm, at Radwell, Beds, by whom we were most hospi-
tably entertained, and where I had the pleasure of gratifying
several of Mr. Swannell's family with a partial ascent while the
machine was confined by the length of the cable. Both Mr.
Dickens and Mr. Elkington displayed the highest courage during
the voyage and descent. The distance completed in 63 minutes
was 20 miles. I beg to return my sincere thanks to his worship
the Mayor, and the other gentlemen by whom I have been most
handsomely assisted."

It will be seen by an advertisement in another column that
Mr. Gypson will make a second ascent on Thursday next, from
the same spot.

1840

AERONAUTICS.—Mr. Gypson, the aeronaut, who last sea-
son ascended several times in the vicinity of London, in an
exceedingly handsome balloon, constructed expressly for him,
made his twenty-sixth ascent last Monday evening from
Daventry, in Northamptonshire. The principal attraction
on this occasion to scientific persons interested in such
matters, and many of whom went from London to witness its
effect, was the trial of a new valve placed externally on the
top of the balloon, by means of which it was calculated the
machine, on reaching *terra firma*, might be almost instantly
emptied of its contents, and rendered stationary. On a late
occasion, it may be remembered, Mr. Green and a fellow
traveller descending in boisterous weather were dragged along
for nearly half an hour, tearing their way through hedges,
banks and other obstructions; and not long since, Mr. Gyp-
son was exposed to similar perils. He states, however, that
with the new valve, which although still susceptible of im-
provement, answered the purpose for which he designed it,
he was enabled to exhaust the balloon completely, and render
it motionless in 40 seconds, so that he and his friends stepped
out of the car at once with perfect ease.



By Permission, and under the Patronage of the Worshipful
the Mayor and a Committee of Gentlemen.

MR. GYPSON

Will make his **TWENTY-FIRST ASCENT** with his
Magnificent **SILK BALLOON**, from a spacious Ground
near the GAS WORKS, **NORTHAMPTON**, on **THURSDAY**
NEXT, the 23d of JULY, at Five o'clock.

Admittance to the Ground 1s. each.
When the Balloon has reached a considerable height, a Living
Animal, from the Balloon, will descend in a Parachute.

AERONAUTICS.—Mr. Gypson, the aeronaut, who last
season ascended several times in the vicinity of London
with an exceedingly handsome balloon constructed expressly
for him, made his 26th ascent last Monday evening from
Daventry, in Northamptonshire. The principal attraction
on this occasion to scientific persons interested in such
matters, and many of whom went from London to witness
its effect, was the trial of a new valve placed externally
on the top of the balloon, by means of which it was calcu-
lated the machine on reaching *terra firma* might be almost
instantly emptied of its contents, and rendered stationary,
thus enabling the occupants of the car to land without any
of those risks arising from the rebounding of the machine,
or dragging along the ground. The valve hitherto used
opened internally, and its action being of course impeded
by the upward pressure of the gas, the exhausting of the
balloon occupied a considerable time. Mr. Gypson states,
that with his new valve, which, although still susceptible
of improvement, answered the purpose for which he had
designed it, he was enabled to exhaust the balloon completely,
and render it motionless, in 40 seconds, so that he and his
friends stepped out of the car with perfect ease.

Most positively the Last Ascent.

By Permission and under the Patronage of
the most Worshipful **THE MAYOR**.



FOURTH AND LAST BALLOON ASCENT!

FROM

**NORTHAMPTON.
MR. GYPSON,**

Who was induced to make a Third Ascent for
the gratification of the Gentlemen, has the
honour to announce that he has been prevailed
upon by several Ladies, (two of whom will
accompany him), to make a Fourth Ascent,
from the Grounds of the Gas Works,

On Saturday Afternoon,
AUGUST 8th, 1840,

WITH HIS

**MAGNIFICENT
SILK
BALLOON.**

At a great elevation Mr. G. will detach
a Parachute containing a living animal

For the convenience of Gentlemen attending the mar-
ket, the Ascent will take place at 5 precisely.

Admission to witness the inflation &c. 1s.

This extraordinary Machine, in which Mr.
G. made his Nocturnal Voyage, on June 3d,
1839, is composed of 1800 yards of the rich-
est Silk, in alternate colors, of Crimson and
Gold. It stands 60 feet high, is 36-feet in
diameter, and contains 20,000 cubic feet of
Gas; and is calculated to excite the aston-
ishment of every beholder!

☞ An excellent Band will be provided,
and the Police will be in attendance.

Terms for Seats in the car, to be had of Mr. G. on the
ground.—Mr. G. has had the honor of conveying
22 Gentlemen safely to terra firma, which removes any
fear that might be entertained of a safe descent.

The balloon, after having attained a considerable altitude, reached *terra firma* in a meadow belonging to a gentleman named Bennett, two miles beyond Epping, on the Newmarket road. Mr. Gypson was accompanied by Mr. Brading, the proprietor of the gardens, and it was almost half-past two yesterday morning before the descent took place. The atmosphere was intensely damp and dense, and on their descending no soul was visible at that early hour of the morning. They succeeded, however, in awakening the landlord of a house some little distance from the spot, by whom they were treated with kindness. Mr. Gypson and his companion reached town about half-past five yesterday morning, and on the whole had a most agreeable trip.

Herald

5 June 1839

Apollo Saloon, YORKSHIRE STINGO.

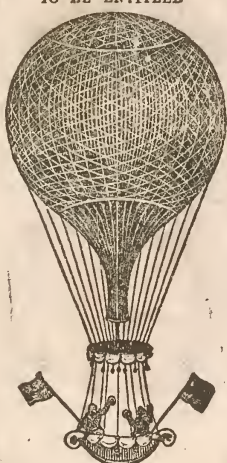
MR. GYPSON,
THE AERONAUT,

Will make his First Ascent from the Grounds of this Establishment,

On Tuesday, June 18th,

In a New Magnificent Gigantic Balloon,
TO BE ENTITLED

THE HERO OF



WATERLOO!!

To commemorate the numerous Victories achieved by the Veteran Soldier, His Grace the Duke of Wellington.

A MILITARY BAND!

THE ANGLO BEDOUIN ARABS!!!

A VARIETY OF ENTERTAINMENTS,

Grand Display of Fireworks.

Admission to the Ground, 1s.

Grounds open at 2 o'clock.

Balloon Ascent at 6 precisely.

Mullin, Printer, 2, Circus Street, New Road.

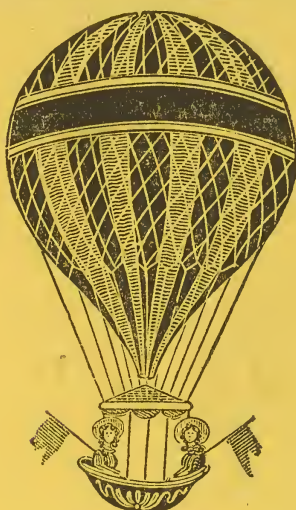
ROYAL STANDARD TAVERN

And Pleasure Grounds,

SHEPHERDESS WALK, CITY ROAD.

Licensed pursuant to Act of Parliament of the 25th
of King George the Second.

H. BRADING, PROPRIETOR.



NIGHT BALLOON!

The universal satisfaction expressed by the immense number of ladies and gentlemen who witnessed the last Night Ascent at these Gardens, has induced the proprietor to make arrangements for another grand Ascent with

**Mr. GYPSON's
ROYAL STANDARD
BALLOON,**

Which will take place on

MONDAY, July 22,

AT TEN O'CLOCK AT NIGHT, 1839

The whole under the Direction of that celebrated Aeronaut,

Mr. GREEN,

Who will discharge a magnificent Display of Fire-
Works from the Car.

THE ENTERTAINMENTS WILL CONSIST OF A

GRAND CONCERT

THE FLYING ARAB

On the CORDE VOLANTE!

Surrounded by Fire-Works.

ENGLISH JIM CROW!

Wonderful Feats of the

LAURENT FAMILY!

Old-English Morris Dance.

Dance of all Nations, Mrs. Andrews

The much admired Ballet of Action,

DON JUAN:

Or, the Spanish Libertine.

Don Juan Mr. TAYLOR.

Scaramouch, Abdel Laurent. Don Guzman, Mr. Starmet.

IN THE COURSE OF THE BALLET THE TABLEUX OF
THE MURDER OF DON GUZMAN.

EQUESTRIAN STATUE.

Storm at Sea and Shipwreck.

INFERNAL REGIONS.

DESTRUCTION OF DON JUAN

In Showers of Real Fire.

The whole under the Direction of **Mr. T. Jones,**
(The celebrated Comic Singer and Comedian)

TO CONCLUDE WITH A GRAND DISPLAY OF

FIRE-WORKS!

The Gardens will be brilliantly Illuminated with
various Coloured Lamps.

Admission, One Shilling.

Doors open at FIVE—commence at SIX.

Parsonage, Printer, 2, Wincoburn Row, Colwell-st.

BALLOON EXHIBITION AT THE BIRMINGHAM FESTIVAL.—On Tuesday evening, in the interval between the musical performances, Mr. Gypson, the aeronaut, ascended with his handsome balloon from the grounds of the Crown Inn, Birmingham, in the presence of a large concourse of spectators. On this occasion he brought into operation his new safety valve, of which a description was lately given, so placed at the top of the balloon that on nearing the earth after an ascent the machine can be at once exhausted of the gas and rendered stationary, without the risk of rebounding or dragging along the ground, as formerly. Some improvements had rendered the valve perfect since its previous exhibition, and the aeronaut so confidently relied upon it, that, considering the grappling-iron and cable unnecessary incumbrances, he ascended without them, taking instead an additional quantity of ballast. After a pleasant voyage he, and a fellow traveller from Birmingham, arrived over Martocke-park, and by means of the new valve were enabled with the utmost facility to descend, from an elevation of half a mile, within 50 yards of Martocke Castle, where they alighted with perfect safety, much to the gratification of the owner, the Hon. Captain Dilk, and a party of the nobility and gentry who had just returned from the musical festival. The travellers were most hospitably entertained at the castle, and afterwards returned to Birmingham.

The Mirror

OF
LITERATURE, AMUSEMENT, AND INSTRUCTION.

No. 894.]

SATURDAY, MAY 26, 1838.

[PRICE 2d.]

Printed and published by J. LUMMAN, 143, Strand, near Somerset House.



THE NEW GREAT MONTGOLFIER, OR SMOKE BALLOON,
SURREY ZOOLOGICAL GARDENS.

VOL. XXXI.

Z

THE PENNY MECHANIC, AND THE CHEMIST.

Nos. LXXXVI. & LXXXVII.]

MAY 26, 1838.

[VOL. III.]

THE GREAT MONTGOLFIER; OR, FIRE BALLOON.



VOL. III.—Nos. LXXXVI. & LXXXVII.

Holloway Press: D. A. Doudney

THE NEW GREAT MONTGOLFIER BALLOON.

EVERY one at all acquainted with the history of Aeronautics must remember the well-earned celebrity of the Montgolfiers, about half a century since. Balloons constructed upon the principle first experimented by these ingenious persons, are called *Montgolfiers* from the toy balloon which we are accustomed to start for the delight of our family at home to the stupendous machine destined to amuse many thousands of "children of a larger growth."

The Montgolfiers may, however, be more properly called "*Smoke Balloons*;" for they are filled with white smoke, found by computation to be, at least, one third specifically lighter than the common air. This purer sort of smoke is scarcely any thing but air itself charged with vapour, being produced, (by the inventors) by the burning of chopped straw or vine twigs, in a brazier, under the orifice of the bag. It would have required no fewer than 150 degrees of heat alone to cause the same extent of rarefaction. As this process is carried on while the balloon is in the air, its management must require the most careful superintendence; since the proximity of a lighted furnace to many hundred yards of varnished linen, the escape of sparks, &c., are somewhat fearful to contemplate. In the fabrication of the Montgolfier about to be described, the above point has been strictly attended to; and, in the construction of the furnace lies the main improvement upon the inventor's original plan. The practicability of the ascent has likewise been tested by experiments already made in Essex; so that there is nothing to cause apprehension from inexperience on the part of the aeronauts or manipulators.

We have often had occasion to notice novelties in nature, science, or art, as first introduced to the public at "the Surrey Zoological Gardens;" but never one more extraordinary than the immense aerostatic machine bearing the above cognomen, which is to make its first ascent from these excellently adapted grounds on Thursday next. Since the first discovery of balloons by Stephen and Joseph Montgolfier in 1782, there has not been an ascent of so extraordinary a nature, or which has excited so intense and general an interest. It is the first that has ever taken place in England with an aerostat on this beautifully simple, but seldom used plan. The balloon has been constructed by a party of gentlemen, interested in the art of aerostation; and its fabrication has occupied many months of uninterrupted labour, during some period of which upwards of 100 women have been engaged in sewing the seams of the vast machine together.

The New Montgolfier is the largest and most powerful aerial machine ever built in

this country, being 130 feet from the bottom of the car to the upper rim of the balloon, and 200 feet at its greatest circumference. It is, therefore, *the height of the York Column*; and its circumference is nearly half that of the dome of St. Paul's Cathedral. It contains, when fully inflated, 170,000 cubic feet of air. The car is fifteen feet by eight, gorgeously ornamented, and made of cane: it has an aperture in the bottom, through which part of the furnace drops. The furnace is of very ingenious and peculiar construction. The chimney from it is placed in the lower aperture of the balloon, while the aeronauts are able, with the most perfect convenience, to regulate the quantity of fuel. The degree of heat can be raised to 200 of Fahrenheit in *three minutes*, and depressed to that of the surrounding atmosphere almost as quickly; and the balloon can be fully inflated by the great power of this furnace in *eight minutes*. When in that state it presents the peculiar egg shape represented in our Engraving, being cut off quite abruptly at the bottom, and there leaving an aperture of 46 feet in circumference. This is formed of rope bound with basil, and lies as flat as any other part of the machine, until the inflation takes place. To this another very strong hoop, formed of ash, bound with cane, is suspended, and on it depends the weight of the car and its appurtenances. There is no net-work, as in the gas balloons; but its absence is supplied by a line being sewn down each of the 58 gores with the material, and terminating in the neck-rope before described.

The grapple is the invention of the constructor of the balloon, and is very powerful: it weighs 85 lbs., and is so made, that in case of any single fluke, of which there are six, being broken off, it can be easily replaced by means of a nut and screw. Having a swivel head, there is also less danger of breaking the cable attached to it. The fuel consists of small bundles of wood prepared in a particular manner, chopped straw, and willow rinds; many hundred pounds of which materials will be taken up. The machine has an ascending power equal to the weight of fifteen or twenty persons. The fabric is lawn, covered with a peculiar varnish, and thus made impermeable. It is extremely light. The apparatus for inflating it is very extensive; a large platform being raised about twelve feet above the Lake in the Gardens, with an aperture from which the heated air ascends into the balloon. It is necessary to elevate the crown of the balloon to about half its height before the inflation is commenced; and for this purpose two, large, stout spars, of about ninety feet in height, will be raised; and by means of a rope passing through blocks, the machine will be hauled up, until it gains sufficient ascensive power to sustain its own weight.

Of the ascent we hope to present satisfactory details in our ensuing Number.

THE GREAT MONTGOLFIER; OR, FIRE BALLOON.

Nearly two-thirds the height of the Monument, and containing, when inflated, 170,000 cubic feet of air.

THE scheme of the Montgolfier is again to be put to the test on Thursday next, the birthday of her Majesty, at the Surrey Zoological Gardens, when several gentlemen, (who have for a long time been engaged in the construction of an immense balloon, measuring 130 feet in height, and 200 feet in circumference) will make their ascent. Its ascending power is calculated at 2,400 lbs., and it would consequently carry up from fifteen to twenty persons. Its fabric is a peculiar kind of lawn, prepared with a sort of varnish, which combines extreme lightness with great durability and strength. The car is fifteen feet long, and eight feet wide, and is made of wicker work, ornamented most gorgeously.

The necessity for netting is obviated by an ingenious plan of fastening a line down each gore or seam, the whole of the seams terminating in a stout hoop made of several thicknesses of cane bound together, and forming an aperture of forty-six feet in circumference.

Another striking peculiarity is the close approximation of the car to the aperture or neck of the balloon, and the consequent shortness of the suspending cords. This is done for the purpose of introducing the furnace-chimney into the neck of the balloon, at the same time that the aeronauts in the car have a perfect command over the radiation of heat, which can be raised or depressed in an incredible short space of time.

The chief improvement on the original machines of Montgolfier, is in the construction of the furnace. The first aeronauts, as Pilati, Rozier, and others, who ascended in France, used merely an open brazier, which was of course attended with great danger; but by this invention that danger is entirely avoided; for although the air can be rarefied to 200 degrees, no fire or sparks ascend into, or can come in contact with the balloon. The fuel with which the furnace is supplied, consists of straw, wool, and small faggots of brushwood, prepared in a particular manner. The grapple is a very powerful instrument, and is also of peculiar construction. It weighs eighty-five pounds.

Although this kind of aerostat appears at first sight to labour under many disadvantages, it will be found, upon consideration, that there are facilities which render it equal, or in some respects superior, to a gas-balloon. For instance, there is no danger, as in the case with the latter, of bursting the machine, by the sudden rare-

faction of the gas, by the sun's rays, when rising suddenly above a cloud, or throwing out a large quantity of ballast at one time; because it would be impossible to heat the air contained in the balloon by the action of the rays of the sun, to a greater degree than is done by the fire in the car, before the ascending power is gained. The descent is also expected to be much more easy than with a common balloon, on account of the great size of the aperture at the bottom, discharging all its contents almost immediately.

A contemporary journal, says "It is surprising that no one has thought of returning to the original plan of filling with heated air. The idea, however, does not seem to have struck any one until last autumn, when a number of scientific gentlemen determined to try what could be done in the way of improving the construction of the balloon, as first invented by the brothers, Montgolfier, in the year 1782." By referring, however, to Number 32, of our Magazine, for June 1837, we find the following account of an ascent in a Montgolfier.

"*Novel Ascent in a Fire Balloon.*—A young gentleman, of the name of Sneath, residing at Mansfield, has made a large fire balloon of fire-proof canvass. On Wednesday evening he was anxious to try its buoyancy, and, inflating it, took it at nine o'clock to the Bleak-hill, where he thought he had secured it to the earth. He got into the car to see what weight it would carry, when the sudden bounds given by the machine disengaged the cords, and he rose in the air. He remained in the balloon, floating about, until eleven o'clock, when the machine began to descend, and the grapple caught in a hedge near Spondon. Here, however, another difficulty presented itself: if he got out of the car the balloon would rise, so he determined to keep his seat until the next morning, when, to his great joy, he received the assistance of some countrymen, about half-past four, when he packed up his ponderous machine and conveyed it to the nearest town (Derby)."

Monday, May 20.

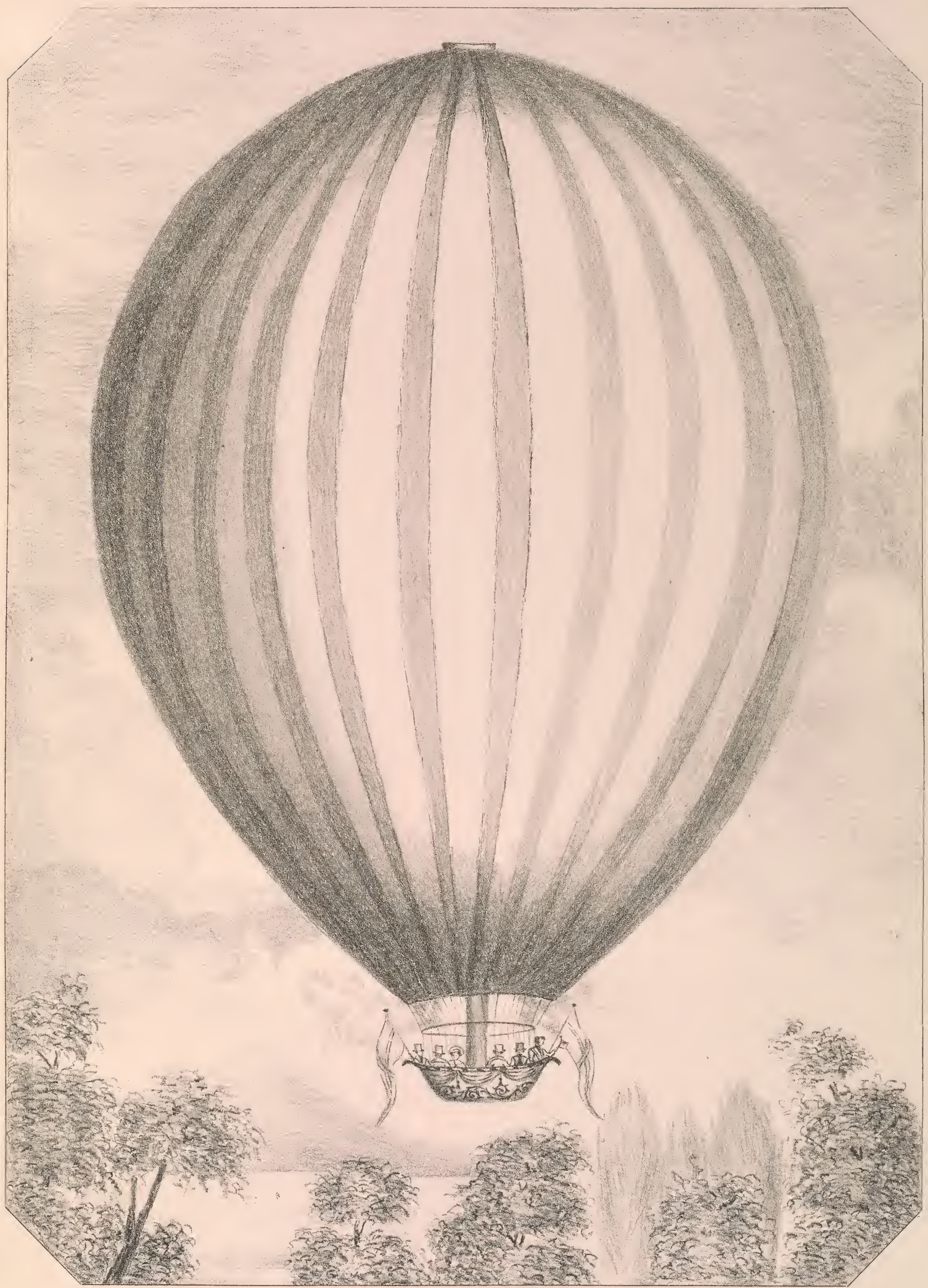
The Oriental Diamond.—We find by Ritter, that it is found over a large extent of the borders of the table land of the Deccan, from the 14th to the 25th degree of latitude. It is there seen in a loose, conglomerated sandstone, of but a few feet, and more or less deep beneath the surface. Gold is also found there occasionally. The conglomerate consists of quartz, iron-stone, jasper, chalcedony, cornelian, and brown iron-ore.



THE GREAT MONTGOLFIER or FIRE BALLOON.

Drawn on the Spot at the Surry Zoological Gardens.

Published by J. Follet, 15, Catherine St. Strand.



THE GREAT MONTGOLFIER or FIRE BALLOON.

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Published by J. Follis, 15, Catherine St. Strand.

THE GREAT MONTGOLFIER BALLOON.



Montgolfier's Balloon.

AIR,—Vicar and Mosses.

As you ramble along,
I will sing you a song,
Make haste there is plenty of room;
To see Monsieur Goltfier,
Through the elements steer,
In a thing that is called a balloon.

Chorus.

Mons. Goltfier's great Aerial Balloon.

Nine old women good lawk,
Altogether did talk,
When like thunder some voices loud bawls
Oh! get off my toes,
And see yonder she goes,
About ten times as big as St. Pauls.

As they rambled away,
I just heard them to say,
My eyes what a terrible group;
And she is not fill'd alas,
With oil, spirits, or gass,
But with steam from a pot of pea soup.

A great fire inside,
They can cook as they ride,
And aloft they will play funny capers;
Roast a bullock 't seems,
Boil a cart load of green,
And steam 7 ton of potatoes.

She is as high as St. Paul's,
Out an old lady bawls,
And ten times as big some one told her,
And when she left the ground,
She would take up a town,
And eleventeen million of soldiers.

Some declar'd o'er the sea,
She was going to flee,
Our grand coronation to smile on,
And fetch horse clothes and rugs,
And nine thousand big bugs,
And the King of the Tongaroo Islands.

Its like a house I declare,
There is up and down stairs,
A garden and pond too for fishing,
A great coach house good lord,
A pump, stables, and yard,
And a parlour, a washhouse, & kitchen.

An old tailor declar'd,
He for certainty heard,
He'd bet three pence half-penny farthing
There was plowing, & sowing,
And reaping, and mowing,
And thirty-three acres of garden.

To out do Mr. Green,
With their air, wind, and steam,
I doubt if ever they'll be able;
If their soup pot should burst,
Won't they make a great fuss,
And nimbly jump under the table.

So I now must presume,
This great giant Balloon,
Is fill'd with hot air from the fountain!
One old lady did say,
'Twas a great stack of hay,
And another bawl'd out, its a mountain.

The old and the gay,
They all toddled away,
The tinker, the barber, and baker;
When they put on the steam,
They shout God Save the Queen,
May she have a good blow out of tatoes.

She's exactly nineteen,
Is our blooming young Queen,
And she thinks she has long enough tarried
Mons. Goltfier she has sent,
Up aloft with intent,
To find a husband that she may get married

JOHN MORGAN

WESTMINSTER:—Printed for the Vendors.

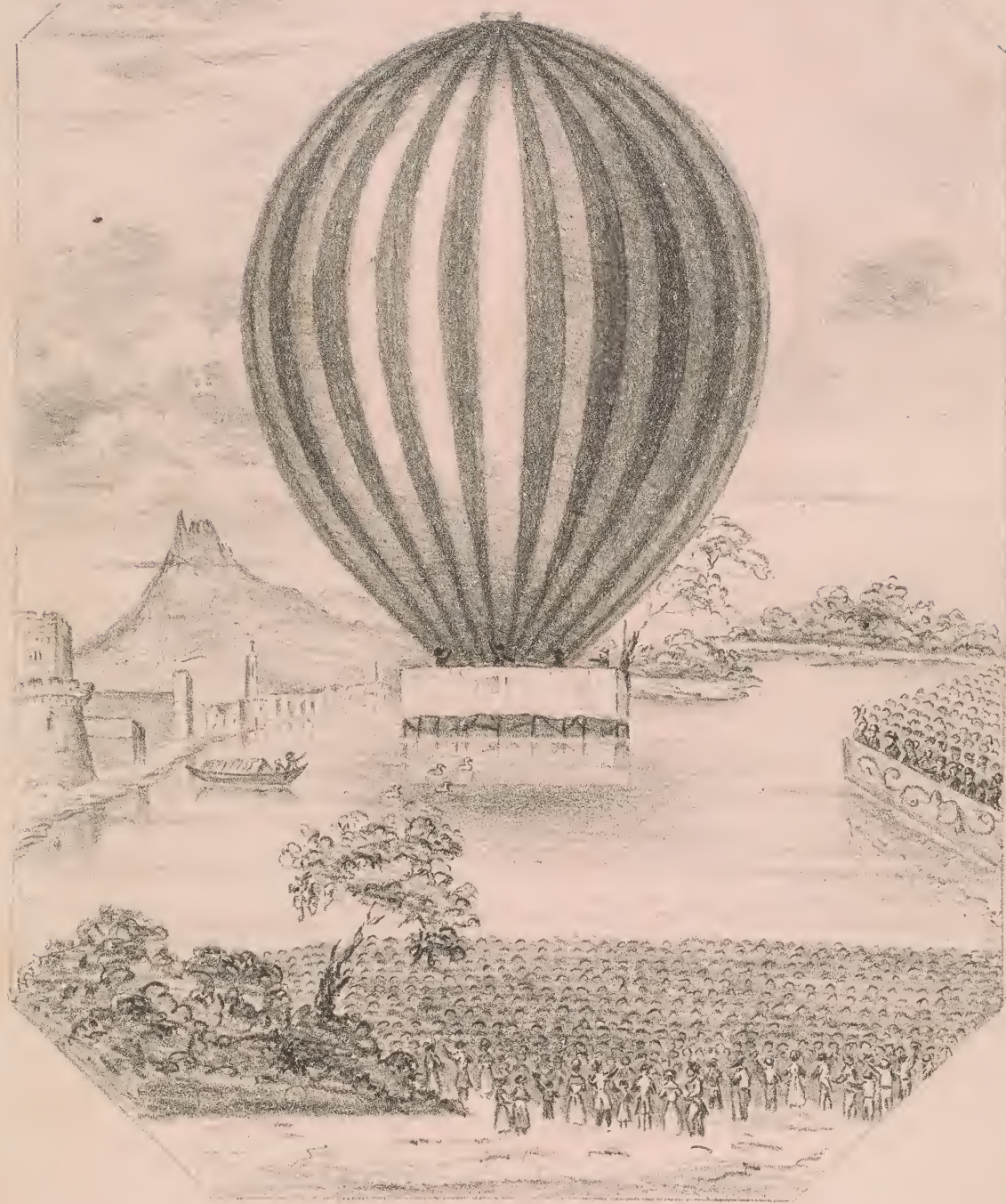
June 1830.

THE QUEEN'S ASCENSION DAY, OR THE STATE MONGOLFIER.



JOHN BULL.—Hollo! what the deuce are you at—going to throw me over,
after I have done my best to raise ye all in the clouds?
WHIGS.—Exactly so, John—we have too much ballast, and of course you
being the most insignificant here, you had better make a descent as speedily as
possible, for the benefit of our experiment:—hope you may come on your feet,
as usual, like a cat, unhurt—good bye, Friend John.

June 2. 1830



A CORRECT REPRESENTATION OF
THE GREAT MONTGOLFIER OR FIRE BALLOON.

as it appeared on the Lake at the Surrey Zoological Gardens,
previous to its TOTAL DESTRUCTION by the People, May 24th 1838.

DRAWN ON THE SPOT BY
the Publisher G. Folitt, 15 Catherine St Strand.

BALLOON ASCENT WITHOUT GAS.—ROYAL ZOOLOGICAL GARDENS, Surrey, under the immediate patronage of her MAJESTY.—On THURSDAY, May 24, the GREAT new MONTGOLFIER BALLOON, inflated with heated air, will ascend with several Aeronauts, from a large raised platform erected in the centre of the lake, being the first aerial voyage ever made in England with a Fire Balloon, and the largest aerostatic machine ever constructed in this country. It is more than half the height of the monument, 200 feet in circumference, and contains 170,000 cubic feet of air. The new ornamental gallery commands a perfect view of the process of inflation and the ascent. A splendid military band will attend. Open at 12. Admission, 1s. 1838.

THE MONTGOLFIER BALLOON.
1838
Those persons to whom aerostation is a subject of interest will have an opportunity for the gratification of it on Thursday next. On that day the grand "fire balloon" will ascend from the Surrey Zoological Gardens. Three gentlemen, it is announced, will go up in the car, but their names have not been suffered to transpire. This will be the first time a Montgolfier balloon has ever ascended in this country. The danger to be dreaded from the ignition of a machine of this sort, when at a great height from the earth, and the fatal consequences which have resulted from this sort of experiment, have rendered the ascent of fire balloons extremely rare, and for many years such a thing has only been talked of, or at least carried into execution on so small a scale as to render the experiment ridiculous and without interest. The first ascent that was ever made in a fire balloon took place in the year 1784, at Lyons. The balloon made use of on that occasion was pyriform. It was made of two layers of linen cloth, enclosing a larger layer of paper between them; it measured, when inflated, 130 feet in height, and 105 in breadth, and could contain more than half a million cubic feet of air. The car was in the shape of a gallery, 72 feet in circumference; the furnace was 20 feet in diameter. This balloon had a netting, which the one at the Zoological Gardens has not. In the car of the Lyons balloon at the time of the ascent were Joseph Montgolfier, the Marquis de Pilatre de Rosier, the Count de Laurencin, the Marquis de Dampierre, the Count d'Anglet, the Prince Charles de Ligues, and a young man named Fontaine, who happened to be in the car at the moment when the balloon escaped into the air. This balloon rose to a height of 3,000 feet, when a rent of four feet long was discovered in the side of it, and it descended with a fearful rapidity at a distance of little more than half a mile from the place of its ascent. No accident, however, occurred. On a subsequent ascent in a balloon on the 15th of June, 1785, from Boulogne, in company with a young man named Romain, M. de Rozier and his companion both fell victims to their courage. In order to counteract the fluctuations consequent upon all aerial excursions, and to obtain the power of increasing or diminishing the weight of his apparatus at will, without the usual expenditure of gas or ballast, he affixed to the weight was to be borne, a small fire balloon. The inflammable contents of the larger sphere soon filled the vacant portions of the silk, and, pouring down the tube which formed the neck of the balloon, reached the furnace, which was disposed at its lower extremity, and became ignited. The whole was consumed in the air, and the two aeronauts were dashed to pieces between Boulogne and Calais. A monument marks the spot on which they fell. Three other persons have been victims to similar experiments, Olivari, Bittorf, and Tjambeccari. It is to be hoped the projected voyage will be accompanied by no such fatal calamity. The balloon at the gardens is in height very little short of 130 feet; it is about 50 feet in circumference, of the shape of an egg; and when inflated will contain 170,000 cubic feet of rarefied air. It has no net-work, but is fastened to a hoop by about 50 cords, which are sewn one within each seam; from this hoop the car is suspended. The car is close upon the under extremity of the balloon; in the centre of the car is the furnace, having a tube going into the balloon, through which the heat necessary for the rarefaction is conveyed. The balloon is made of glazed or oiled lawn, of which there is but a single layer. Its colour is white, with red stripes.—Observer.

THE MONTGOLFIER BALLOON.

Mr. Editor,—A report being prevalent that the persons who were to have ascended in the Montgolfier balloon are foreigners (and not having the slightest wish to conceal any fact), I beg to say such is not the case. The constructors are scientific gentlemen, who have for a length of time made aerostation their study, and they were assisted by Mr. Dean, who has been engaged in the management of balloons for many years, and who was, with several others, to have ascended. It is also, I understand, reported, that the car, &c., were not provided. I can only say that the car, grapple, and all other requisites are still in the garden for the inspection of any person. I here repeat that, recollecting the disastrous fate of Mr. Cocking, I was solely actuated in the decision I came to by a desire to prevent the inevitable loss of human life which must have ensued, had the aeronauts ascended in the manner they wished to do, and that up to a quarter of an hour of the disappointment being announced, I felt confident of the ascension taking place.

I beg to offer my most sincere thanks to the many thousands of respectable persons who, by their interference, repressed the conduct of those who, fancying themselves intentionally deceived, would not admit of an explanation, nor receive the very compensation they were clamorous for. I must also publicly thank the police employed, for their excellent, temperate, and efficient conduct on this occasion. I have the honour to be, sir, your very obedient humble servant,
E. CROSS,
Royal Zoological Gardens, Surrey, May 26, 1838.

HUMBAG.

MR. CROSS AND THE SURREY ZOOLOGICAL GARDENS.

Of all the schemes invented to plunder and rob poor John Bull, the one practised by Cross of the Zoological Gardens was the most complete. This fellow had the audacity on Thursday last to swindle upwards of 12000 persons out of £500. money, paid for admission into his gardens under pretence of sending up a Montgolfier Balloon, when we told him such a thing was never contemplated, and the whole affair was a disgraceful swindle. He knew well enough the night before the balloon exhibition, (and at the time when he received the admission money at the doors) that the whole thing was a vile hoax, and receiving one shilling in payment for admission to the gardens under such circumstances, was obtaining money under false pretences. The magistrates ought to order the gardens to be closed and never allow him to be permitted to show his face in Surrey again. Had a poor half starved wretch in the last agonies of despair and hunger, snatched a single shilling from the person of any one of the visitors to the Zoological Gardens on the day in question, what would have been his fate?—Transportation beyond the seas for the natural term of his life. In vain would have been his plea about starving wife and children. He transgressed the laws by robbing the public, and humanity must succumb to justice. He would be sent out of the country forthwith. Now we put it to our readers which would be the greatest criminal—Mr. Cross or the poor half famished wretch we have just alluded to. They answer Cross, and most heartily do we respond to them. In the nefarious,

base, dirty, and contemptible transactions of Thursday. Mr. Cross has proved himself worse than the veriest humbug that ever humbugged an easily gulled people, and if the public feel as we do at the time of perusing this article, his picture of Mount Vesuvius and other monstrosities will fume and fret in the Surrey Zoological Gardens to none other spectators than Mr. Virago Cross and the Master and Misses Cross. We should not have mentioned the man or his family at all in the pages of Paul Pry, but for the fixed determination with which we set out (to expose every description of fraud and villany), and this feeling induces us to put a few questions to Mr. Cross, which if he has any manly feelings, are calculated to make him hide his head from the vengeance of an infuriated populace. The blood curdles neither one editorial vein when we think of the consequences which would have resulted had he carried his base and horrible threat into execution; and upon cool reflection we are induced to hope that it was only caused by the excitement of the moment, for we cannot bring ourselves to believe it. At the desire of a Correspondent, who states he was present the whole of the afternoon, we put to Mr. Cross the following queries.

1st. Pray, Mr. Cross, when Tyler came round to you and told you that the company were beginning to throw stones at the balloon, did you not say with the utmost sang froid imaginable, "Let 'em, they shall have twenty such balloons for such another garden."

2d. Pray, Mr. Cross, when the Superintendent of the Police told you that the public would probably withdraw their patronage from the Gardens in the event of imposition, did you or did you not turn upon your heel and say "They may be d—d."

3rd. And lastly—Did you dare to threaten the company, that if they did not quietly take their money back at the doors and quit the gardens, you would disperse them in a minute by letting the wild beasts out of your menagerie!!!!

Now, if Mr. Cross did say, and do these things, we think that he has fully proved himself to be quite unworthy of the support and patronage of the British public, and to their scorn and indignation, we learn him with this observation of our own, that whenever he announces "Fancy Fair" "Horticultural Fete" or any other rubbish, we will be on the look out to caution the pleasure seeker, and to whisper in his ear these remarkable words: "Remember, Cross of the Surrey Zoological Gardens, and his last swindle about the Montgolfier balloon!!!"

Seriously, the affair ought to be enquired into.

MONTGOLFIER BALLOON.—A Montgolfier or fire balloon, of extraordinary dimensions, so as to ascend with several aeronauts, is now being manufactured under the immediate superintendence of Mr. H. Green (a brother of the celebrated aeronaut) and will shortly ascend. O.L. 1838

THE GREAT MONTGOLFIER BUBBLING BAG.

"The earth is full of bubbles, these are of them."

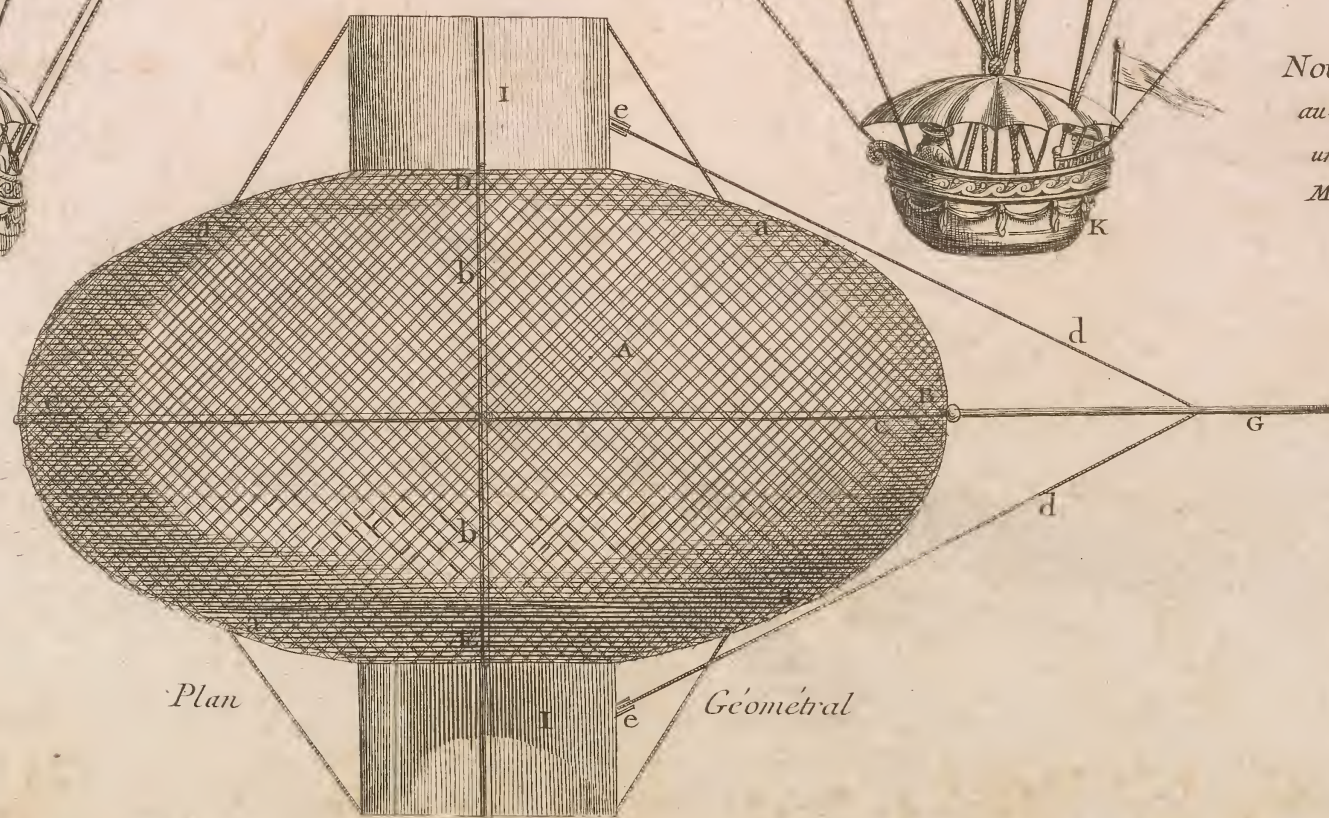
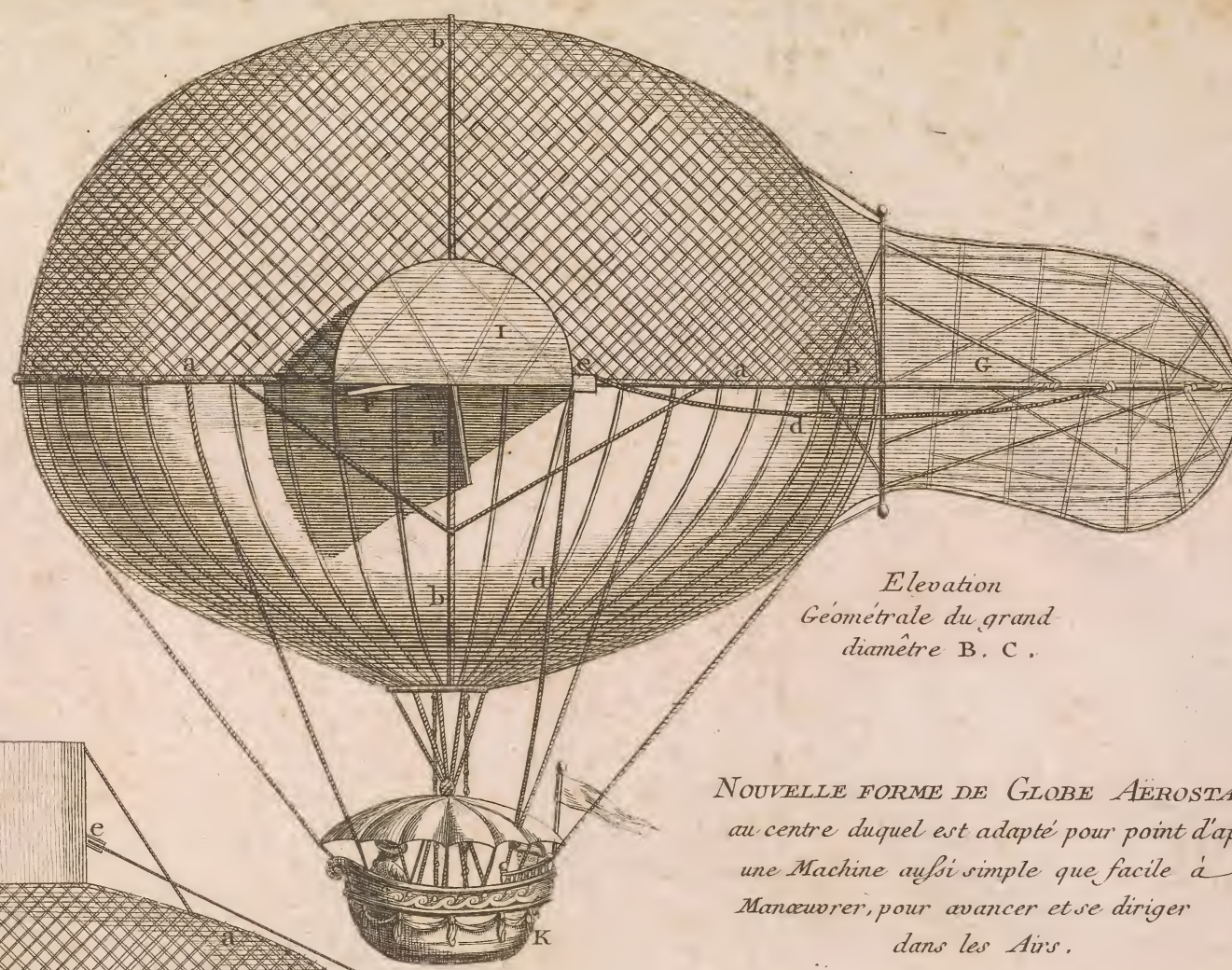
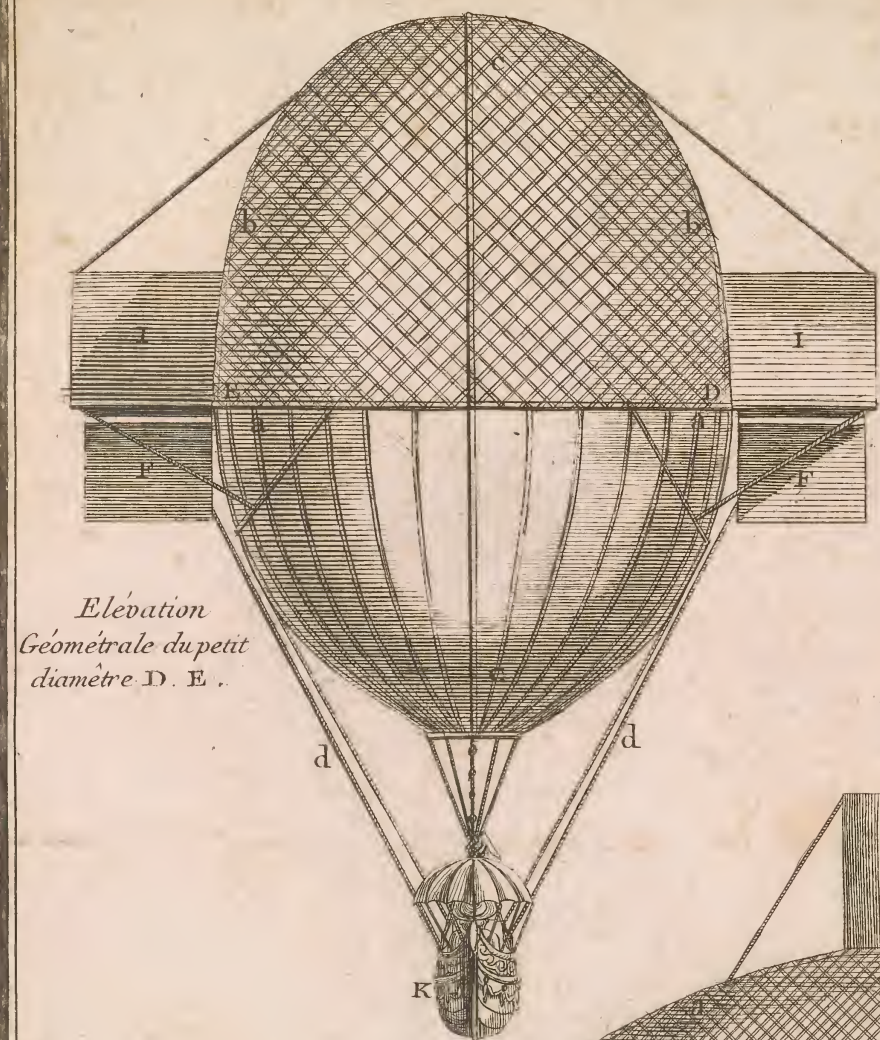
Yesterday the Surrey Zoological Gardens were made the scene of an aero-static performance, which threatened at one period of the entertainment to terminate in their total demolition! Now that the danger is past, Mr. Cross will doubtless exclaim, "Tis well it's no worse," and, growing wiser by experience, will eschew such flutulent exhibitions in future. The facts are these:—"A generous and confiding public," was informed that a colossal fire balloon, with a car full of aeronauts, would be let loose yesterday from the Surrey Balloon Menagerie, "doors to be open at twelve;" and thereupon credulous London poured forth her thousands from all quarters, at all hours, from noon till dusk, to behold the raree show. The plants alas have not yet "come out" this season (indeed the incipient smoke-dried buds looked rather the worse for their proximity to Mount Vesuvius)—so all inquiring eyes were patiently turned upon a large bag, constructed of alternate stripes of white and red, upheld by ropes attached to masts in regular ballion array above a platform in the water, from twelve o'clock to six, while "a full military band" entrenched in the Pagoda, discharged amongst the crowd a succession of exasperating airs, which in the fulness of time produced their natural effect, and (it was also generally remarked) tended not a little to arouse the bile of the *ferre nature*. No car was to be seen—no arrangement for attaching it was perceptible—no intelligence could be gained of the interprising voyageurs. At length a serried platform, full of spectators who, for the small charge of a shilling extra, sat *tele-a-tele* with the empty bag for six hours, looking (as an old lady observed) "just like beau-pots ranged on a tall flower stand"—began to stamp and make most audible signals of dissatisfaction with its non-performance. Not even a shower of rain occurred to dissipate their *ennui*—nothing but the serio-comical phenomenon of some gigantic gentlemen striding (like Gulliver in Lilliput) over the mole and city of Naples. From six till half-past six the bag was seen to be undergoing a charge for the better, but by what agency the fulfilment was accomplished could not exactly be discovered, for a canvas screening concealed all the interesting pyrotechny which people wanted to see; and, in short, everything but the heads and shoulders of the attendants. For the next hour the bag did nothing, and the assistants appeared to be occupied in helping it; but, as the bag ceased to swell, the immense assemblage began to inflate with an energy of impatience that would not be repressed. Shouts of "Let go!" "Off!" &c., resounded through the Gardens; but the only response appeared in the shape of placards, on which it was announced in printed characters that "the balloon could not ascend" (why or wherefore was not stated), "and that the Eruption of Mount Vesuvius would take place instead." This unfortunate "typographical error" decided the fate of the placards and the balloon. The bearers were hustled, kicked, and tossed about by the indignant crowd; while, like Lord Marmion's pennon in the fight of Flodden—

"Advanced, forced back, now low, now high,
The placards sunk and rose.

But dully closed the war around,
Like pine-trees rooted from the ground,
They sunk amid the foe's."

The multitude exclaimed that the affair was "a hoax," "a cross," "a bag of smoke!" and forthwith proceeded to take vengeance on the unlucky bag, which never had been (they were convinced) destined for a balloon, and which assuredly never shall be. A continuous volley of stones was directed against it on all sides, and the blows resounded

"Fast, thick, and heavy as a thundershower," or like those of shillelaghs against heads at an Irish fair. Soon holes were seen (neither few nor far between) in the party-coloured giant's side, out of which the warm life-breath rushed rapidly, intermingled with sundry comically-curling gasps of smoke, as the body of the martyr sank in a state of mortal collapse upon the gridiron or fryingpan upon which it had been spiritualized. Pity that the attendants (whom they found it thus, judged, condemned, and executed at a blow) did not aid it to die gloriously in its own infernal fires, and ascend, once for all, in purifying flame to its proper paradise. Such a sacrifice might have propitiated the insulted multitude and restored its good humour on the instant. Indeed the balloon seemed to think so, for it twice heroically set itself on fire as it fell, but the ill-timed attentions of its attendants prevented its effecting its own brilliant apotheosis, which would really have been worth beholding. Nothing of this kind occurred the crowd proceeded to take further vengeance, despite of the attempted apology of Mr. Cross (who made just as much impression on the roaring assailants as Demosthenes did on the stormy waves), and despite of the threats of a surly keeper that he would turn out the tigers to clear the gardens, they pulled down the planks that guarded the ropes attached to the masts for the guidance of the balloon, and then "yo heave oh!" down came the masts too; one snapped across and the other caught by the bough of a tree as it fell on the ladies and gentlemen of the flower stand. The destruction of this gay *parterre* appeared to be next in progress; but the ladies seated thereupon screamed as the first planks were torn up, and its execution was suspended. Stones were heard rattling against the glass roof of the beautiful circular menagerie; but the energetic cries of "Shame, shame," from the more considerate part of the company saved it from demolition, after about one hundred holes had been made, and the ladies who had taken shelter there from the external riot had uttered as many supplicating shrieks. Personal captures were made by the police, and instantaneous rescues by the crowd followed; but at length the former, through prudence or weakness, gave up the struggle, and then the "spirit of movement," having nothing to struggle against, died quietly away. Perhaps the smoke which issued timely from Vesuvius aided in some degree to occupy and turn their attention from further deeds of retribution; or, as rage generates hunger, who knows but the whole refreshment room might have been devoured as an acceptable trophy of "a great public triumph." We really think that Mr. Cross has had a wonderful escape from that "most untamable animal," a disappointed English crowd, and we trust that he will not recklessly thrust his head within its jaws again for the benefit of any projector of bubbles or parachutes. He showed particular good sense, however, in not returning the money called for so vociferously by the 5,000 who departed, for 5,000 more had got into the garden gratuitously during the assault on the balloon, and remained to applaud the performance of Mount Vesuvius, which (we must do it, or Mr. Cross, the justice to say) was really splendid. We strongly recommend him to keep the mountain ready charged, and the next time a balloon misses fire to discharge it on the instant. It will certainly prove a restorative for popular good humour.



NOUVELLE FORME DE GLOBE AÉROSTATIQUE
au centre duquel est adapté pour point d'appui
une Machine aussi simple que facile à
Manœuvrer, pour avancer et se diriger
dans les Aïrs.

Composé, dessiné et Gravé

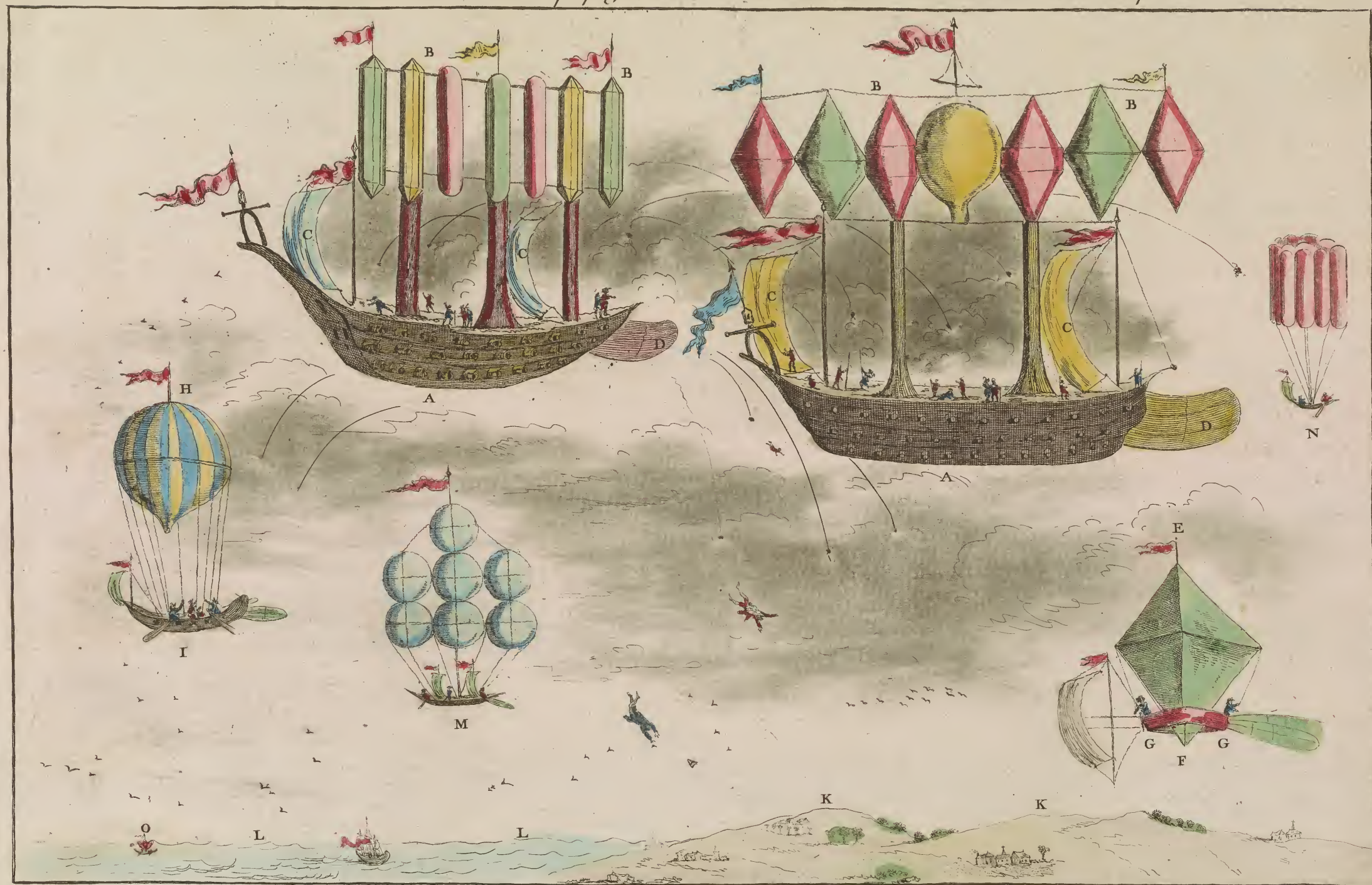
Par le S^r. Mathieu
Mécanicien.

Pont au Change

Au Roy David

Chez M^r. son Père Marchand.

COMBAT AËRIEN De deux Vaisseaux, chacun de 100 pièces de Canon, à Arcs d'acier au lieu de poudre à Canon,
Et de 1000. hommes d'Equipage, l'An 100. de l'invention des Machines Aërostatiques.



- A. Vaisseau Aerostatique de 100. pieds de quille.
B. Ballons ou Globes en nombre et en capacite' suffisant pour porter le Vaisseau et sa charge dont il n'a été possible que d'en représenter ici une petite partie.
C. Les Voiles en toiles ou en taffetas.
D. Le Gouvernail.

- E. Chaloupe ou Ballon Polyedre avec Gouvernail, Rames, Voiles et autres agrets pour plusieurs hommes.
F. Son Rechaud ou Grille pour faire le feu necessaire.
G. La Gallerie au tour et au bas du Ballon.
H. Poire Aerostatique que l'on remplit de Gaz.
I. Nacelle avec ses Agrets pour porter les hommes.

- K. La Superficie de la Terre
L. La Mer
M. Gros Vaisseau avec tous ses Ballons dans le lointain
N. Autre avec des Cylindres pleins de fumées, flammes ou Gaz.
O. Vaisseau Aërien a 3. Poires ou Polyedres qui vogue sur la Mer faute de provisions pour tenir dans l'Atmosphere.

Xuaner Inv.

LES MOYENS d'aller dans les Airs sans Feu, Fumée ni Gaz ni Vuide, et sur l'Eau sans Batteau 1784.

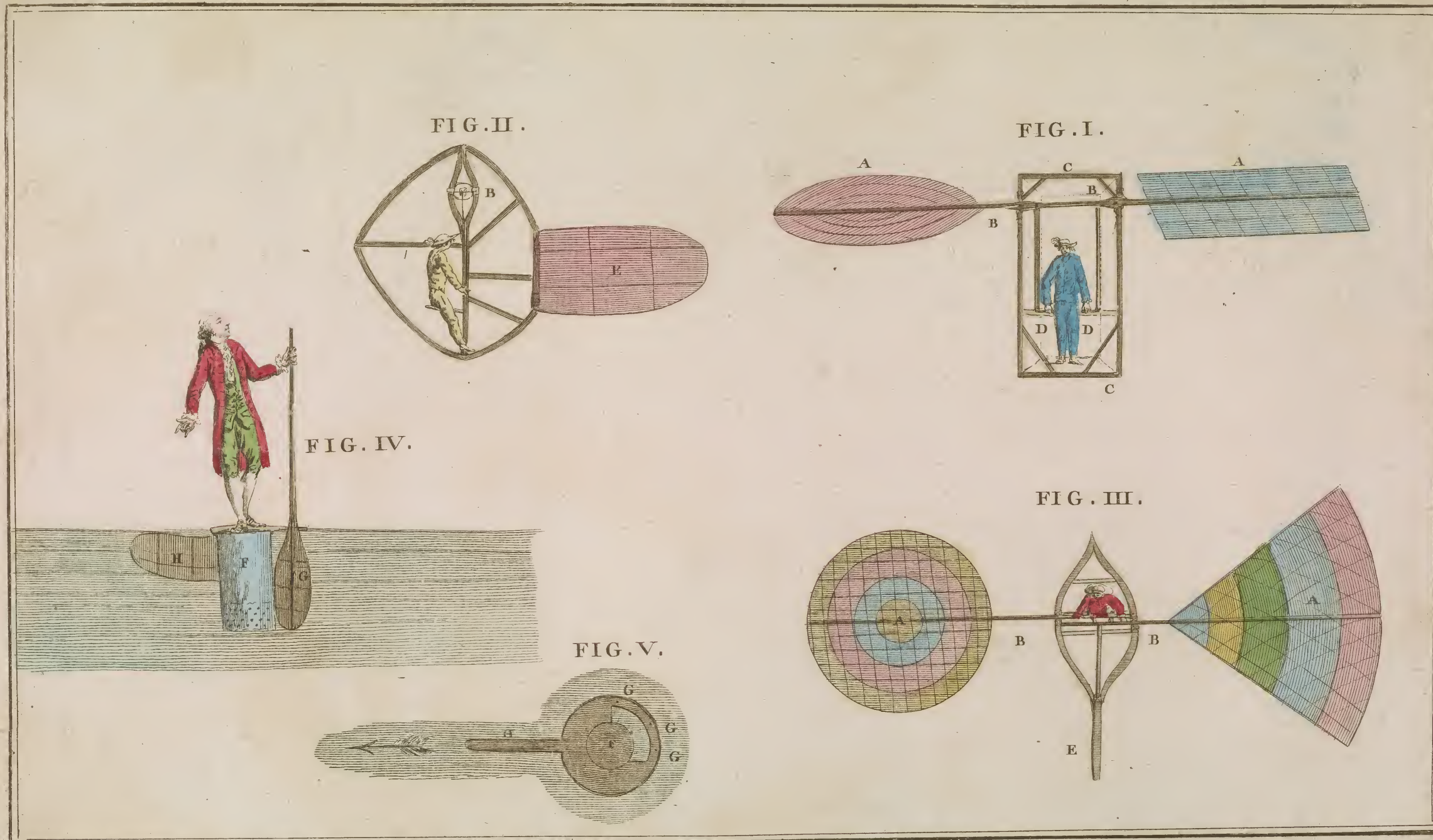


FIGURE I. Vue en Largeur d'un homme qui voyage dans l'Atmosphère avec des Ailes ou Rames à Soupapes.

- A. Ailes ou Rames à soupapes: C'est une petite perche d'environ 2½ Toises au bout de laquelle est un cercle ou quarré ou autre surface avec de grandes mailles de fil de Clavecin, sur les quelles sont des soupapes en anneaux concentriques de fort papier ou soye Vernisé ou Plumes, l'on peut donner 64. pieds quarrés à cette surface en attendant que l'expérience la détermine peut-être plus juste.
- B. Axes des Ailes ou Rames, dont les bouts se meuvent dans un cercle de Latton pour donner aux Rames suivant le besoin le mouvement perpendiculaire ou oblique.
- C. Charpente légère et solide comme de Joncs, Bambou, &c. pour porter

l'homme et les points d'appuis des Rames.

D. Le Voyageur Aérien prend des 2. mains les bequilles pour mouvoir à propos les Rames, en observant qu'il les meut perpendiculairement pour monter et obliquement pour s'avancer et se soutenir à la même hauteur, et différemment l'une que l'autre suivant qu'il veut diriger sa marche il fait mouvoir le Gouvernail des pieds ou des mains ainsi que les Axes des Ailes suivant qu'il en est besoin.

FIGURE II. Vue en longueur de l'Homme Oiseau

E. Gouvernail en soye vernisée sur quarrés de baguettes de bois et à Charnières

FIGURE III. Vue horizontale de la Machine Aérienne

Pour que cela réussisse il faut un homme peu pesant fort et vif, et

que le tout ne pèse guère plus de 200. Livres: pour porter plusieurs hommes et bagages l'on feroit la Machine à proportion.

FIGURE IV. L'Homme qui Marche sur l'Eau.

F. Cylindre de 5. à 7. Pieds cubes fermé de creux vuide pour que l'eau n'y puisse point entrer et lesté au fond avec du Plomb de manière que la partie supérieure sur laquelle l'homme se tient se trouve de quelques pouces hors de l'eau.

G. La Rame à soupapes solide et légère que cet homme fait mouvoir et qu'il place à propos par rapport au Gouvernail pour se diriger.

H. Le Gouvernail de toile cirée sur baguettes de bois pour pouvoir traverser les courans et se diriger avec la Rame.

FIGURE V. Vue d'Oiseau, du dessus du quart de cercle pour placer la

ESSAI SUR LES MACHINES AÉROSTATIQUES POUR LES PERFECTIONNER ET LES EMPLOYER UTILEMENT.

PAR A. J. R. INGENIEUR. 1783.

FIG. VI.

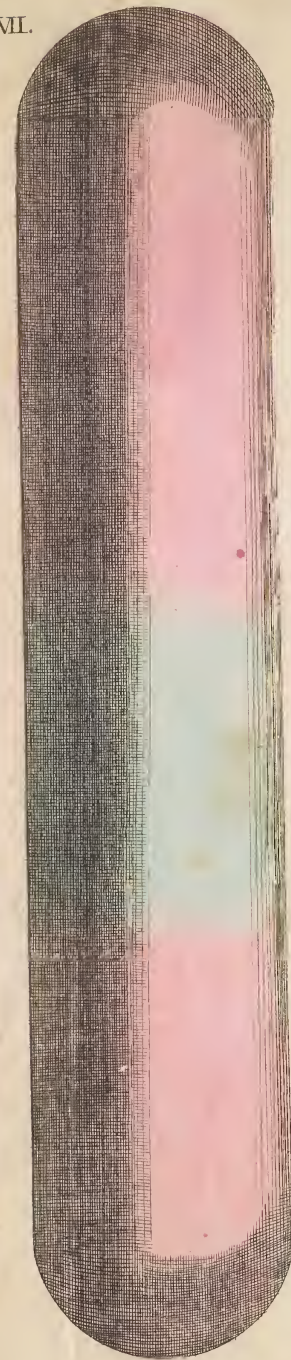


FIG. VI.

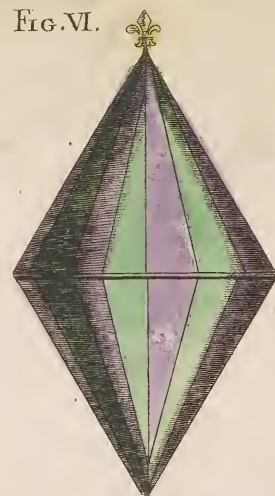


FIG. V.

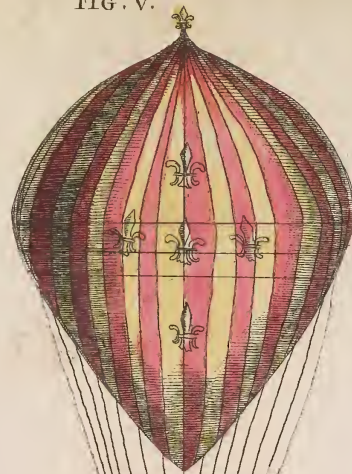


FIG. II.

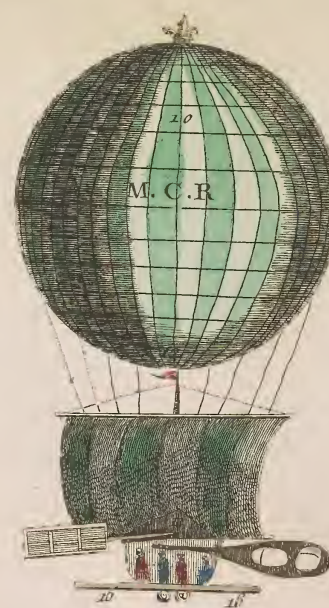


FIGURE I.

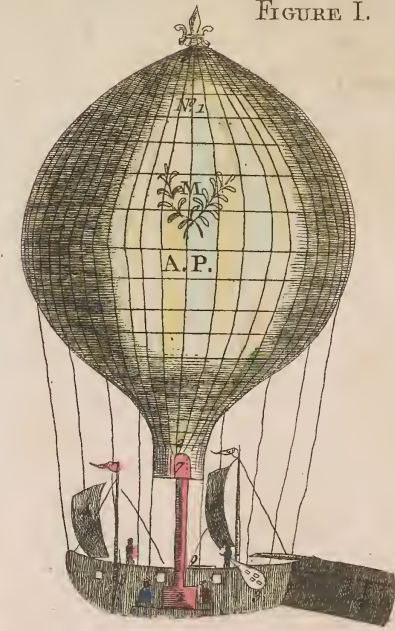


FIG. IV.

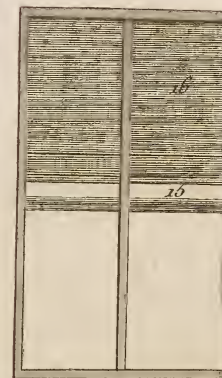


FIG. III.

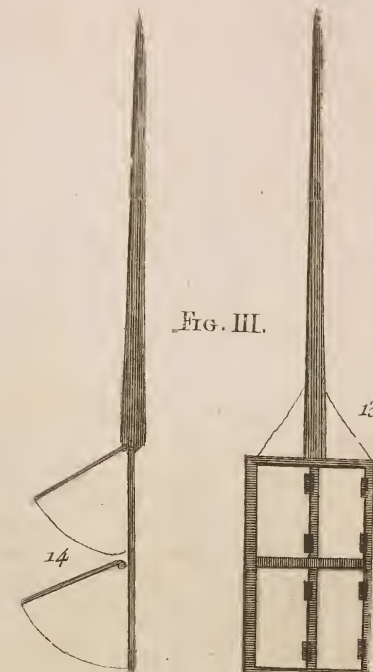


FIGURE I. Balon de 8 Toises Diamètre pour porter au moins 12 Hommes et provisions.

1. Corps du Balon en toile ou taffetas, ou fer blanc, feuilles de cuivre, peaux ou cuir légers et solides, vernissés, sur tout les métaux à l'extérieur pour ne point attirer le Tonnerre.
2. Cheminée ou Poêle en tôle ou Cuivre pour fournir le feu et la fumée nécessaires au Balon.
3. Le Char ou Vaisseau en Osier recouvert d'une toile cirée dans le quel il y a autour du feu la Chambre et le magasin des Voyageurs.
4. La Voile en toile ou Taffetas pour pouvoir profiter du Vent pour aller plus vite.
5. Gouvernail de toile Vernissée sur un Chassis de bois pour diriger la machine, et l'envoyer au besoin.
6. Rame pour s'avancer, sur tout dans un air calme, et faciliter à descendre ou l'on veut.
7. Au Sommet de la Cheminée est un crible de fil de fer pour empêcher les flambérons de mettre le feu à l'enveloppe, quoi qu'en suite d'un, et une soupape ou régulateur pour régler et éteindre le feu au besoin.
8. Soupape qui s'ouvre et se ferme au moyen d'un cordon pour lâcher la fumée au besoin pour faciliter la descente.
9. Espèce de Rame horizontale pour empêcher si le Balon ou Globe venoit à Grever, de tomber trop rapidement.

Nota. l'on peut se servir de fumées de Pailles mouillées de Laines, Chiffons, Cornes, Papiers et Marches huilées, Tourbes de marais, Poudre à Canon,

&c; en Général de toutes celles légers fortes et de durée et au meilleur marché.

FIGURE II. Globe de 6 Toises Diamètre en Toile ou Taffetas Vernissée de gomme Élastique, ou en fer blanc pour porter 15 Hommes et bagages par l'air inflammable soit de certaines mines de Charbon de Terre, ou d'autres endroits ou matières.

10. Le Globe, lequel peut se remplir de gaz de limaille de fer et d'huile de Vitriol en quelques heures en faisant agir à la fois un nombre suffisant de Barriques, cet air inflammable est plusieurs fois plus léger que la fumée et peut durer plusieurs jours sans se fixer. Il est bien à désirer que l'on en trouve à meilleur marché, peut-être pourroit on en faire avec les Pyrites martiales?
11. Le Panier ou Char avec voiles, gouvernail, Rames, Boussole, Perche et autres articles nécessaires, le tout léger et solide et suspendu par des cordons ou Baguettes. L'on peut faire une couverture pour garantir les Voyageurs de la pluie.
12. Robinet ou Soupape pour donner ou ôter le gaz au besoin.
13. Vue horizontale d'une Rame, laquelle est faite d'un Chassis de Bois auquel sont appliqué des Carréaux de fer blanc ou de tôle sur quarrées de Bois, à Charnières dans la partie supérieure pour que ces carréaux mobiles dans la partie inférieure en se fermant fussent aller en avant, et que du sens contraire, ils ouvrissent pour ne pas reculer.

FIGURE IV. Autre Rame pour empêcher la descente trop précipitée de la machine.

14. L'on voit par le profit deux Carréaux ouverts.
15. Rouleau à ressort de toile ou taffetas, au moyen du quel en tirant un Cordeau, la Toile s'étend sur un Chassis de Bois pour Exposer une grande Surface à l'air, à l'effet de ralentir la descente de la Machine au besoin.
16. Rouleau dévêloppé qui se replie en lâchant le Cordeau.
17. Vaisseau ou fardeau considérable à élever.
18. Grande et petite Roues qui au moyen de Cordages, multiplient la force du Globe, le corps élevé perdant de la Vitesse à proportion.

FIGURE VI. Balon Conique ou autrement pour élever de l'eau à quelle hauteur que l'on voudra.

19. La Roue sur la quelle s'enveloperoit la corde du Balon.
20. Manivelle de fer qui feroit mouvoir un tiran lequel par le brisement d'une équerre, feroit aller un Piston.
21. Pompe ordinaire dans la quelle joue un Piston.

FIGURE VII. Autre espèce de Balon en forme Cylindrique.

sonnes et Bagages en proportionnant en conséquence la machine en un ou plusieurs Ballons ou Globes.

Pour des Hommes qui manœuvrent avec intelligence il n'y a pas plus de danger de Voyager dans l'atmosphère que par des Vaisseaux sur mer. Il n'est guère besoin de s'élever plus de 100 Toises dans l'air, pour voyager, d'ailleurs si on s'élevoit d'une lieue, il y auroit trop de danger, à cause du grand froid et que l'air est trop rarifié à cette hauteur.

Par ces moyens l'on peut aller par un vent favorable en trois jours de Paris à Madrid, ou à Rome, ou Vienne ou Berlin. &c. d'autant plus que l'on peut descendre en Chemin pour se rafraîchir s'approvisionner et se reposer.

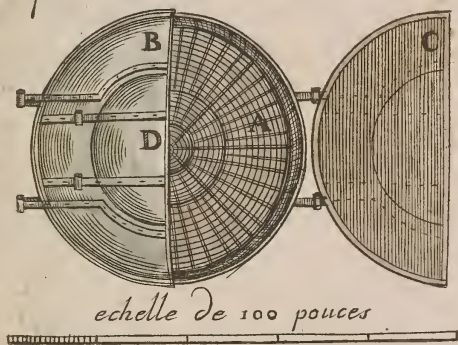
S'il on faisoit un Globe de fort fer blanc de 23 1/2 Toises diamètre Vernissé en de hors avec une légère et solide Cacaove en dedans, dont l'on videroit l'air par la pompe ordinaire ou par la Vapeur de l'eau bouillante, ou du feu et de la fumée ou du Gaz, il est certain qu'il s'éleveroit dans l'atmosphère et qu'il pourroit faire le tour du monde avant de tomber, car il pèseroit environ 40 milliers et l'air pompé 45 milliers: mais reste à savoir si l'enveloppe résisteroit au poids de l'air extérieur équivalant à une colonne d'eau de 80 pieds d'hauteur.

Se Vend

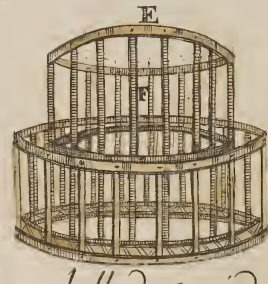
A Paris chez M^r Piquenot Graveur rue de l'Observance.

AËROSTAT CONSTRUIT A AIX EN PROVENCE

- A Rechaut
- B moitié de la porte fermée
- C Moitié de la porte Ouverte
- D petite porte
- E Charp^{te} portant la gall.^{ie} et le rech.
- F place du Rechaut



Cet aerostat déplacera 65476 pieds Cubes d'air atmosphérique, il pourra Elever 3515 livres poids du païs. toute la Machine avec les Voyageurs et tout Ce qui leur Sera nécessaire en pesera 2115; par Conséquent il restera 1400 livres qui doivent lui procurer une ascension tres Elevée



Dédié a Messieurs, le Baron de glandeves, Simeon fils, de Joannis la brillanne, de Benoit, Maire Consuls asesseur d'aix, procureurs des gens des trois Etats du païs Et Comté de provence.

B. lantelme Del. et Sculp. 1784

par Sont tres humble Serviteur Blantelme graveur de la province Se vend Chez l'auteur Rue trois Ormeaux chez M. Mille M^{re} tabletier



J. Houel inv. et sculp. 4. 2^e 1783.

GLOBE AËROSTATIQUE,

AVEC SES AGÈS POUR VOYAGER DANS L'AIR AU MOYEN DU VENT.

- A. Vaisseau ou Char.
- B. Voiles que l'on dispose selon le vent.
- C. Autre Voile qui fait l'office de Gouvernail en avant.
- D. Gouvernail a l'arrière du Char.
- E. Ancre pour s'arrêter en cas de tempête ou pour descendre a terre.





FÊTE AU CHAMP DE MARS, LE DIMANCHE 22 MAI 1831, DÉDIÉE A LA GARDE NATIONALE, PAR EUGÈNE ROBERTSON.

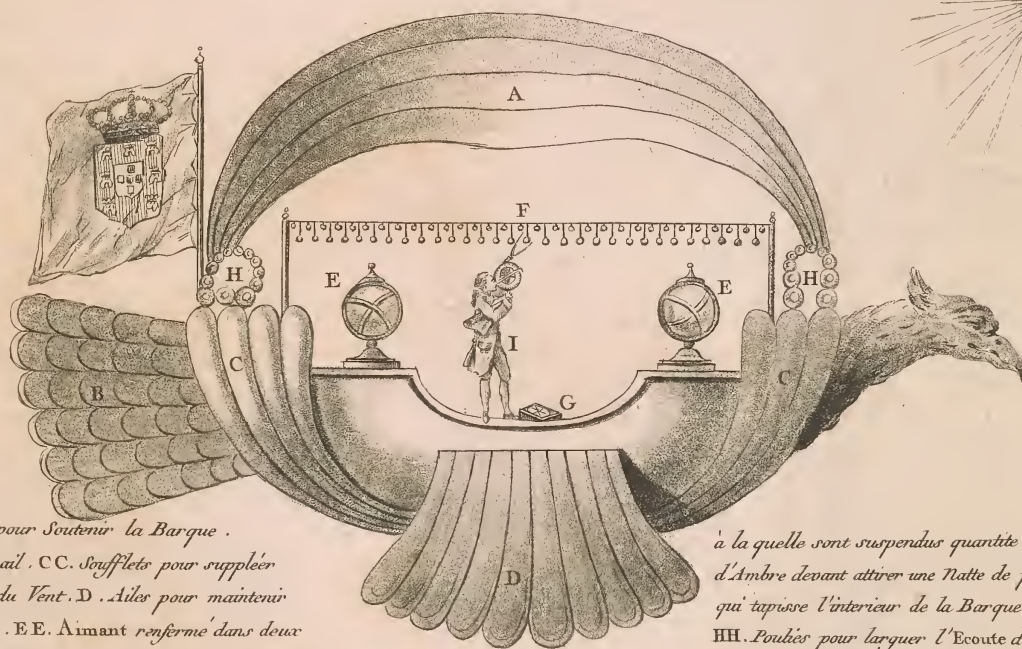
Lith. de Engelmann.



*Courses de Chevaux Français qui ont eues lieu au Champ de Mars,
à l'instar de celles des Chevaux Romains dits Barbéry.*

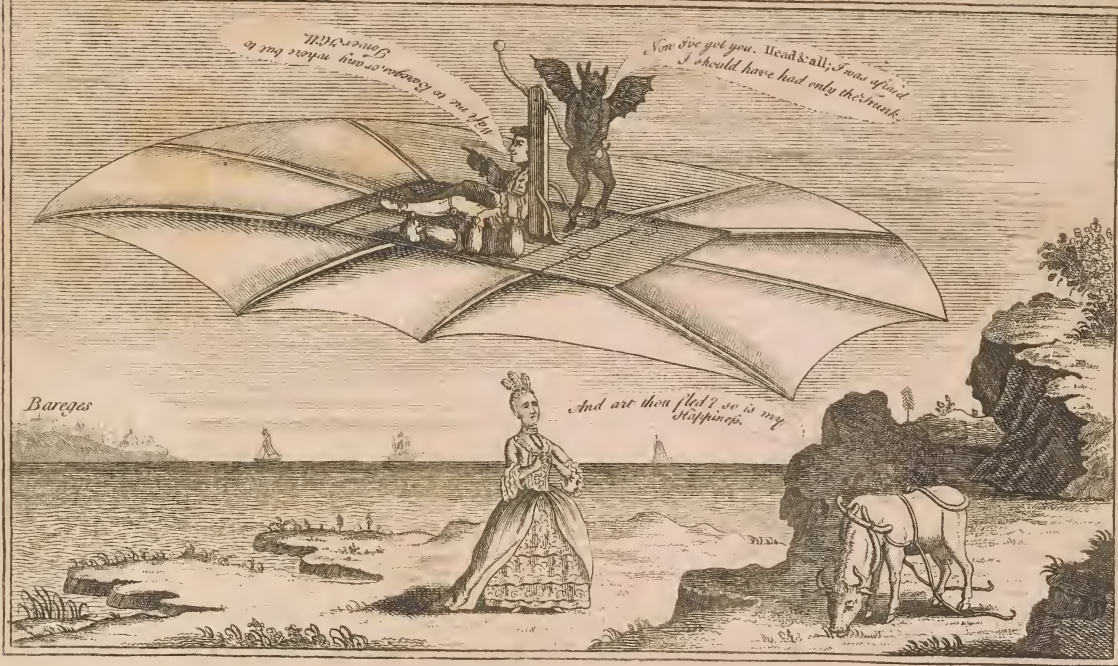


FIGURE DE LA BARQUE INVENTÉE EN 1709
par Laurent de Gusman Chapelain du Roi de Portugal
pour s'élever et se diriger dans les Aïrs.



A. Voiles pour soutenir la Barque.
B. Gouvernail. CC. Soufflets pour suppléer
au défaut du Vent. D. Ailes pour maintenir
la Machine. EE. Aimant renfermé dans deux
Globes de Métal, attirant le Corps de la Barque,
double de lames de fer. F. Imperiale en filet d'Archal

à la quelle sont suspendus quantité de morceaux
d'Ambre devant attirer une Nasse de paille de Seigle
qui tapisse l'intérieur de la Barque. G. Boussole.
HH. Poulies pour larguer l'Ecoute du côté du Vent
I. Espace pour dix Voyageurs et le Pilote
Inventeur dirigeant sa route.



Paris, Feb. 11. A new kind of exhibition is soon to be given to the Public. This is an aerostatic giant, of 18 feet in height, ballasted in such a manner as to preserve a perpendicular direction, which is to be set off from one of the windows of the Thuilleries, to ascend into the atmosphere. This colossal figure will, it is said, be accompanied by several others of a less size. If this flying giant should fall, with his suite, in any of the Cantons, where these aerostatic machines are not known, an idea may be formed of the terror of the inhabitants of the country on seeing men fall from the clouds. 1785

Paris. An artist having made two different figures, one of a horse, the other of a woman, both exactly resembling nature, filled them with a sufficient quantity of inflammable air, and let them off last Sunday evening, from the public gardens of Signor Ruzietti, in the presence of an immense croud of spectators, who all joined in admiring the effect produced by that new kind of spectacle. The adventure ended ludicrously; for the horse happening to come down at a little distance from a man working in the field, and the animal bounding along the plain, the former mistook it for a real horse, and observing it took to a very dangerous road, followed it for above half a mile, and then growing bold, took Pegasus by the hind hoof, and stopped its career. The peasant was now all wonder; and seeing it bore in its mouth a letter, which he could not read, led the horse to a neighbouring chateau, where the contents were made known to him, and an account of the reward promised therein, to any person who should bring Pegasus to its owner. It was by the countryman, after it had been emptied, carried back to Paris. 23 Oct. 1785

The woman came down at Gentwilliers, and was seen by some labourers and a farmer, who all mistook the figure, that then stood still, for a real living creature in distress. None, however, dared to advance towards it except the farmer, who took it up in his arms, but to his great surprise found, that instead of a real woman, he was hugging an inflated bladder. This, like the former, was also conveyed back to Paris, and restored to the owner.

Such is the Rage for doing miraculous Things, that, not satisfied with travelling in the Air, a Man in France has offered to walk across the Seine in Shoes of his own making; and another has petitioned to throw himself, Body, Breeches, and all, into a great Fire, and engages that neither he nor the Breeches shall be hurt. It may be a Question, however, even yet, whether St. Stephen's Chapel be not the Mart of Miracles after all. 1784

A mechanic, at Nancy, in Lorraine, has been for some time busied about the invention of a machine for enabling men to fly. He began with weighing the carcasses of all the birds he could procure, and measuring the expansion of their wings, to discover the proportion of the one to the other. He has yet succeeded no farther than to fly from off a high barn, and to alight on the ground, at the distance of about 100 yards. In one flight, a gale of wind blowing him a little out of his direction, he fell into a large pond, to the no small entertainment of all his neighbours. His wings spread so great a space, that he drops perpendicularly from the highest steeples without danger, descending so gradually to be hurt. 1783

The present rage for air-balloons has encouraged a projector to endeavour at a revival of the art of flying; in order to which, he is said to have applied to a prelate equally celebrated for the soundness of his religious principles, as for his learning and critical abilities, to grant him permission to make an essay of his art from the top of his (the prelate's) cathedral: The good father, answered him, that he could not grant his desire, it being quite contrary to his inclination; for tho' he would do every thing in his power to incite people to come to church, his conscience would not permit him by any means to encourage them to fly from it. 1784



THE WALKING PHILOSOPHER.

Published Sep. 1. 1786 by Harrison & Co. No. 208, Abchurch Lane.

AEROBAINATION:
The ART of WALKING in the AIR.
MESSRS. DERONVILLE and THOMAS
(Author of a Dissertation on the Possibility of direct-
ing AIR BALLOONS, inserted in the Morning Chronicle
the 18th of August), after repeated experiments, have found
the means of Walking in the Air; where they can ascend
and descend, at pleasure, without any other support than
that very fluid; and steer themselves in any horizontal di-
rection, as freely as could be done in an open field. The
end of this discovery is to cross over torrents of water, or
countries desolated by the plague, to visit volcanos, and in-
accessible mountains; to send dispatches with the greatest
swiftness; and to perform long journeys in a few days,
&c. &c. &c.

As the Advertisers mean to give publicity to their disco-
very, they propose the following Subscription and Condi-
tions:

First.—As the whole expence attending the experiment
will not exceed 200 guineas; when the subscription amounts
to that sum, it will be finally closed.

Second.—The tickets given to Subscribers, will be some
of 10s. 6d. others of 5s. and those distributed on the day of
experiment, will be sold at 1s. and 8s.

Subscriptions will be received at the Author's, No. 19,
Seaford-street, Charing Cross, from the 15th of
September; at which time, if there be a sufficient number
of Subscribers, they will be directed to deposit their money
at a person of acknowledged probity who will undertake the
disposal of it.

The public experiment will take place in an enclosed
ground, within a month afterwards.

The Subscribers may be perfectly safe as to the disposal of
their money, and also rest assured of the possibility of the
fact; since, to walk in the air, it is sufficient to destroy, on
one hand, the pressure of the atmosphere, while it is increas-
ed in an opposite direction; or, which is the same, to in-
crease or annihilate either of them separately; wherefore the
attractive and repulsive power of electricity, combined with
the mechanic forces of a man, are sufficient to produce that
effect.

N. B. Should any person be inclined to accelerate, at his
own expences, the experiment of this discovery, advantage-
ous conditions would be then proposed, and undeniable secu-
rity given; and in case of an agreement taking place, other
projects will be disclosed for experiments as new as this, but
more surprising; and in this case, the advantages to be de-
rived from the subscription, will be the same, even without
depositing any money.

The rage for flying is so predominant, that some
wags, taking advantage of the present furor, adver-
tised last Saturday, that a man in a coat of feathers,
with a monstrous pair of wings, would take an aerial
excursion from Moorfields, and invited the Publick,
gratis, as spectators, in consequence of which several
thousands assembled at the appointed time, and waited
for a considerable while, diverting themselves with each
other, till a young man, rather imprudently, being
too free in his witticisms, and hinting obliquely his
knowledge of the advertisement, the populace were with
great difficulty refrained from making him an object
of their resentment. 1784

The announcement of an intended flight by Professor Galignani, from Windmill Hill, at Gravesend, across the Thames to Tilbury Fort Hill, in Essex, turned out, as we anticipated to be, a hoax, originating no doubt with the honorable company of Vintners and Boat Proprietors of the town of Gravesend, who, finding the natural attractions of their neighbourhood insufficient to induce a profitable influx of strangers during this season of relaxation, had recourse to this expedient in order, as it is termed, "to force a trade." The plan was in some respects successful, as, on the Sunday preceding the wonderful exhibition, the steam boats and sailing boats which ply to Gravesend, were crowded to excess by those whose curiosity had been whetted by the hand bills and posting-bills which were circulated and displayed in Thames-street, on Tower-hill, at Wapping, and at other places from whence the passage boats depart, and who were anxious before they appeared to give credit to the story, to ascertain whether it had truth for its basis. By this prudent foresight, many were at least saved the mortification of being laughed at; but they nevertheless contributed, by the money which they spent, to reward the authors of the joke. Among the other houses of public entertainment at Gravesend, to which the multi- tude was particularly attracted, was the Rum Punch-shop, advertised to be the head-quarters of the errand. — Crowds flocked thither, half believing, half doubting, the existence of Monsieur Galignani, and having, as a matter of course, either ordered a dinner, or some other refreshment, they proceeded to interrogate Mr. Pitt, the best, as to his ingenious guest. Mr. Pitt, who, in common with his sign, may be called a rum fellow, attended upon his customers with great alacrity, and with a most sanctified face, assured them he knew nothing of the Fly- ing Phenomenon, save what he had collected from a ge- neral post letter, which had been sent to him, and by which he had been put to the enormous expence of one shilling! This letter informed him that M. Galignani in- tended to come to his house with his wings and other paraphernalia, but he had not, as yet, made his appearance, from which "he was very much inclined to doubt whe- ther he would come at all;" or in other words, that he did not believe there was any such person. Some of the visitors, who saw through Mr. Pitt's candid ex- planation, asked him how he came to sanction the use of his name in the hand-bills, announcing the aerial expedi- tion, for three weeks, without taking some pains to unde- ceive the public? To this he replied, that it was no busi- ness of his, and that he could not help such a liberty, if a stranger thought proper to take it. With this explanation many were constrained to be satisfied; but others, who were not so fortunate as to converse with Mr. Pitt, were positively assured that the flight would take place, and they remained in Gravesend the whole of the night, in order that they might enjoy the pleasure of so unusual a spec- tacle. This matters rested till towards the afternoon of Monday, when innumerable groupes were seen approach- ing, from all quarters, the summit of Windmill-hill, which, in a short time, presented a most lively spec- tacle, and although a few refreshing showers damped the spirits of the more delicate part of the assembly, yet, upon the whole, the greatest good humour pre- vailed. It is but due to the throng, however, to state, that the great majority professed their belief that nothing singular would occur, although they all ran most anxiously to any spot in which a sudden commotion might be raised by the occasional fun of the boys, who were constantly exclaiming, "Here he comes!"

In this state things rested on the hill, but in the town of Gravesend the tables were strangely turned. As the hoax originated with these ingenious folks, it may be supposed none of them would venture out of their houses, lest they might be included in the general charge of credulous folly; nevertheless, many of them who had circulated the lie, still they actually believed it themselves, were seen slyly peeping with their glasses towards the appointed spot, and no doubt were in momentary expectation of witnessing something miraculous. At this awful crisis, a cockney wag, who was somewhat deeper than his friends, foreseeing the laugh which would be raised at their expence, determined to outwit the "knowing ones," and accordingly taking a circuitous path, he reached the London road about half-way to Northfleet, and mount- ing one of the coaches coming down from town, he was soon conveyed to the Lord Nelson, in the centre of Graves- end town. He alighted with an air of great importance, and seeing a groupe of grinning idlers, standing at the corner of High-street, he approached them with a serious countenance, and asked them how they were going on, on Windmill hill? "O! bravely, sir," was the answer, "make haste, you'll be too late to see him go." "Aye," says our wag, "no doubt, but I think some of you will see things go strangely before night!" A laugh, and an ex- clamation of "What do you mean?" followed. "Why," said he, "hav'nt you heard what all this is about?" "No," an- swered one old weather-beaten Pilot of some notoriety, "what is it?" "Why," added the other, "hav'nt you heard that this is all a hoax by the Radical Reformers—a mere pretence for a large body of them to assemble to- gether in order that, when night falls in, they may attack and take Tilbury Fort, and your fortifications, and there- by get the command of the port of London?" "No," answered the disciple of Neptune, "as I hope to be saved, I did not hear a word about it." "Well then," concluded the Cockney, "do you wait a little, and you'll see four troops of horse, twelve pieces of arti- lery, and four regiments of foot, come down to protect you—added to which, before half an hour is elapsed, the Russian Frigate and brig now in the river which have been granted over to the cause of the Radicals, will be boarded by a party of Marines coming from Chatham, whither I am now going to give advice on the subject." This story, although at least as improbable as that of the Flying Man, was instantly swallowed. The old bag-bellied pilot set off to acquaint his friend the mayor, and in his way repeated his tale to all whom he met. The news spread like wild fire; some of the shops were shut up. The telescopes were exchanged for pistols. The boat-hooks were sharpened to answer the purpose of pikes. The old women filled their upper stories with flint stones and oyster shells, to assail the rebels; and, in fact, there was scarcely an individual, who was a resident in the town, that did not believe the story, nor were they relieved from their ter- ror, which, in some cases, produced the most unsavoury consequences, until they saw the throng quietly descend- ing from the hill, laughing very good humouredly at their own disappointment; but when they saw the despairing countenances of the Graves'-men, and were apprised of the cause, they were amply revenged for any mortification which they might have experienced. Many of the oldest, and professedly the most resolute of the townsmen, who had for some prudential reason quitted the town, have since been very appropriately called "the flying men," which title they will no doubt retain until they take their final flight to that bourne from which no traveller returns.

EXTRAORDINARY DISCOVERY.

A person of the name of Le Patro, an Italian, has discovered a medium for the conveyance of any given body, by means of air, and with such celerity as to render it invisible. He has made proposals to Mr. Pitt for the establish- ment of posting, on this construction, letters, &c. to any given place or at sea, at the rate of two miles a minute.

A ton weight is to be conveyed with equal fa- cility as a letter, the apparatus being of propor- tionate magnitude.

The Marquis Cornwallis and the Duke of Richmond have been made acquainted with its principles, and give the most favourable attesta- tion of its practicability and usefulness. But notwithstanding, although the mechanic re- quires nothing more than liberal encouragement, and is justified by the opinion of the great per- sonages above-mentioned in his expectation of making 100,000l. by exhibiting his apparatus as a public spectacle, should Government re- fuse to coincide in his proposals, he cannot ob- tain from Mr. Pitt a decisive answer.

We are not sufficiently informed to enter into the merits of this singular invention; a short time, however, will, we hope, put the public in possession of the benefits which must result from it.

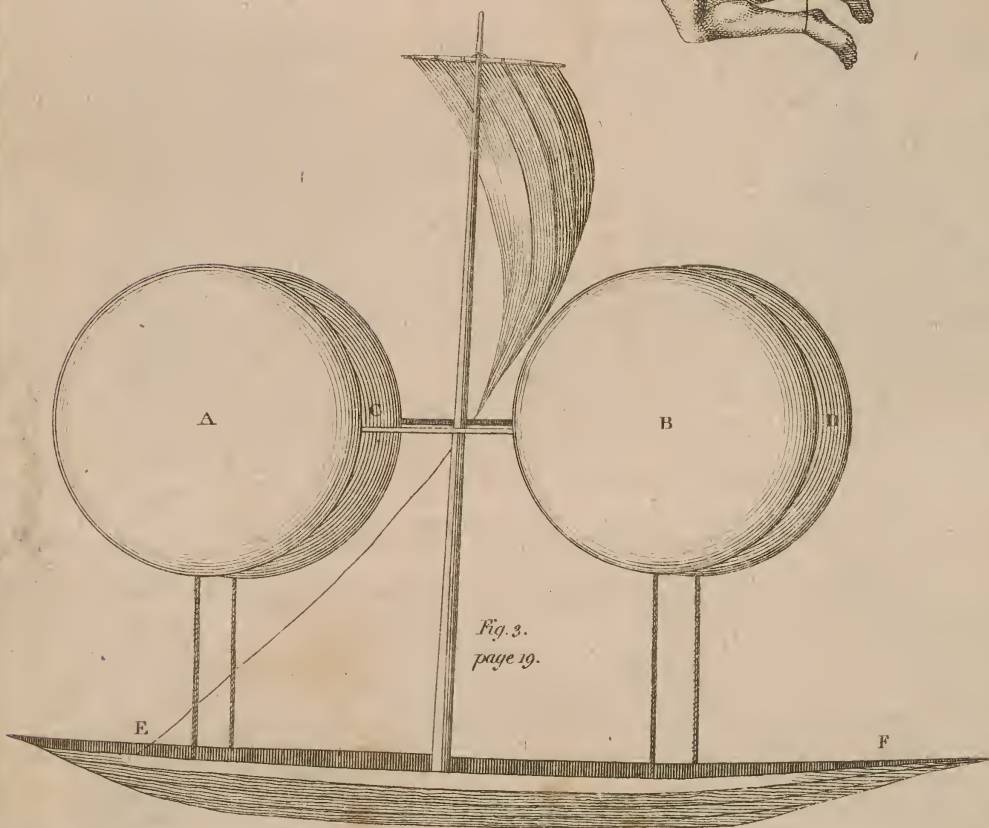


L. P. Bonnard Inv. & Sculp.

According to Act of Parliament 1751.



*Fig. 2.
page 16.*



*Fig. 3.
page 19.*

Advertisement.

The famous Planetary Caravan, which I spoke of before, being now entirely finish'd and render'd convenient for all such Persons, who have any Desire to visit the Moon, Venus, Mercury, or any other of the Planets, is remov'd from Mr. Deard's Toy-Shop in Fleet-street, to Mr. Fawkes's great Booth in the Tennis-Court near the Hay-market; where Passengers may be accommodated with every Thing proper for so long a Journey. This Machine sets out from thence to the Moon very soon (only waiting at Present to introduce the famous Faustina, who is to make her Entry into the Opera, at the Roof of the Theatre, over the Heads of all the rest of the Singers.)

Any Person who intends to go this Way, or send any of their Friends, must send their Names before the first Day of June next, and likewise must deposite their Earnest Money, in the Hands of the said Mr. Fawkes, which being one half of the Fare to the Moon, will come to a Hundred and Twenty Five Pounds. The Machinist contents himself with this moderate Price, (being only one Farthing a Mile,) purely to serve his Country and facilitate the Means of Transportation, having long observ'd, how usefull this Project has been to the Inhabitants of this Island.

In the same Place also, may be seen the Planetary Curricule, which is a Vehicle prepar'd only for two Persons, being a lighter Carriage, and very fit for a Couple of Lovers, who have a Mind to spend their Honey-Moon in Venus, and perhaps shou'd take a Fancy to come back again in Haste.

Country Gentlemen, May 2. 1786.

N. B. For the Encouragement of all such Persons, who go long Journeys, Fawks is order'd to take only one Thousand Pounds for a Million of Miles, which will be a saving of 125 l. for every Million of Miles, and render this Aërial Navigation more easy to the Adventurers.



L'expérience de cette Figure Aërostatique haute de 8 pieds, faite par les frères Enslen.

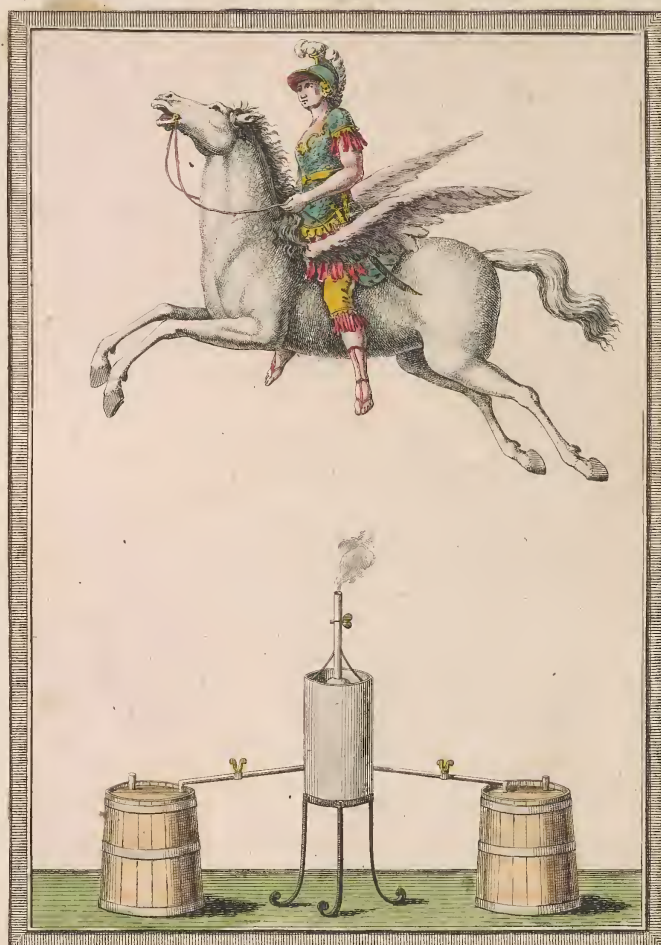


Figure Aërostatique de 6 pieds 8 pouces de longueur, sur 9 pieds 6 pouces de hauteur, faite par les frères Enslen.

GRAND and WONDERFUL EXHIBITION, at the LYCEUM, in the STRAND. *Nov 19*
MR. ENSLEN, in addition to his charming AIR FIGURES, so greatly admired at the Pantheon, now exhibits, for the first time, his master-piece, a work of two years, and far superior to the others. It is a majestic DIANA in a golden car, drawn by two fine stags, of the most animated form. Though every figure of this admirable group is larger than the life, yet the weight of the whole is only 44 ounces. The amazing lightness of the texture which these charming forms are composed of, the brilliant transparency, the just proportions, every thing makes the wondering spectator imagine he really sees an airy shadow clothed in shining raiments, of the richest tints and most glowing dyes. Mr. Enslen, grateful for the constant encouragement he has received from the Public, thinks himself happy during his short stay in England, to be able to exhibit this unparalleled spectacle on the most moderate terms.
To be seen grandly and constantly illuminated, from eleven in the morning to ten at night.
Admittance only Six-pence.

Y, JULY 6, 1786.

PEGASUS in the AIR,
The Fifth Experiment of the Kind ever seen in England.
TO-MORROW, the 7th. inst. Mr. Enslen will charge with gas, and let off in the air, his famous Winged Horse, mounted by an armed Warrior. The experiment will be made between One and Two o'clock in the beautiful and extensive Bermondsey Spa Gardens, Southwark; a lovely Air-Nymph, will first take her aerial flight, and soon after the spectators will see with wonder and delight, the majestic ascension of the superb Steed and Hero, the very same that ascended with the greatest success last summer in Paris, to the unspeakable astonishment of every beholder. Admittance, first place 2s. 6d. second, 1s. If a wet day, the experiment will then take place the first fair day after the 7th, and immediate notice given of it in the public papers.

LYCEUM, in the STRAND.
A GRAND EXHIBITION, never yet shown to the PUBLIC. *Nov 19*
IT is Mr. ENSLEN's MASTER-PIECE.—A CHARMING DIANA, in a golden CAR, drawn by TWO BEAUTIFUL STAGS. These alone who see this inimitable group can form an idea of its exquisite workmanship, rich transparency, and astonishing lightness, though every figure is larger than the life, yet the Goddess, STAGS, CAR, and all weigh only 44 ounces.
At the same time will be EXHIBITED the FAMOUS FLYING HORSE, that ascended from Bermondsey Spa.—THE NYMPH—A colossal FAME—And the wonderful AMERICAN HARPY.
To be seen constantly illuminated from eleven in the morning till ten at night.
Admittance ONE SHILLING.

PANTHEON.
MR. ENSLEN's inimitable AIR-FIGURES, the first ever seen in England, so long universally admired in Paris, and so highly approved of by all who have seen them in this Metropolis, are now exhibiting at the PANTHEON. The public experiment made on Wednesday the 22d of February, in the Great Room of this Noble Edifice, has convinced the most incredulous that these master-pieces of art, perseverance, and labour—not only ascend with ease in the air, but also always preserve their upright position at any elevation. The same beautiful Horse, mounted by an armed Warrior, which was let up with the greatest success in Paris last October, will, with another Figure, be publicly charged with gas, and then let off to take their course through the regions of air, and go wherever the winds shall direct them to. This astonishing experiment will be made in the beginning of Summer. Nothing can equal the sensation produced by the first view of these beautiful aerial forms, particularly when seen by the light of a rich illumination; the transparency, the vivid glow of the variegated colours, every thing impresses the spectator's mind with the idea, that he really sees a supernatural being, who, in order to render himself visible to mortals, has given to the colourless and impalpable fluid, the richest hues, the justest proportions, and the most agreeable of all forms.
To be seen from ten in the Morning to ten o'clock at Night, (Thursday Night excepted.)
Admittance only One Shilling each person. 1786

PEGASUS and PERSEUS in the AIR.
A superb Wing'd Horse, mounted by a Warrior, ten Feet in Height, in Weight twenty-eight Ounces, the first Experiment of the kind ever seen in England.
ON FRIDAY, the 7th of July, in Bermondsey Spa-gardens, seven acres in extent, in the Grange-road, Southwark, on the lower road to Deptford, the same wing'd courier, mounted by a hero, representing Perseus and Pegasus, that flew forty miles last Summer in France, and now exhibiting at the Pantheon, will be charged with gas, and then liberated, to take its course through the regions of the sky. A lovely air nymph will be let off a few minutes before the ascension of the horse. The operation of filling, &c. which will be easily seen by every person in the gardens, will commence precisely at One o'clock; and at Two, Perseus, riding on his fiery steed, will majestically ascend, always preserving his upright position in the air, and then glide with grace through the yielding element, to the delight and astonishment of all the beholders. As this wonderful experiment will infallibly succeed—as completely in London as it did in Paris, Mr. Enslen, the inventor of these inimitable figures, humbly presumes, that the public will find their most sanguine expectations amply gratified.
Admittance, First Place, 2s. 6d. Second Place, 1s.—The Half Crown Tickets may be had at the Pantheon, and at Mr. Key's, Bermondsey Spa.
Should the day prove wet, (the only hindrance to the experiment) the ascension will then take place the first fair day, Sunday expected, after the 7th, and immediate notice will be given in the public papers. Till the day of the experiment only, the exhibition of the whole cabinet of these beautiful aerial forms will be continued at the Pantheon. Pegasus and Perseus, Fame, Mercury, the Harpy, &c. are to be seen, inflated, from ten in the morning till ten at night.—Admittance One Shilling.
N. B. For sale, Balloons of gold-beaters' skin, of different diameters, elegantly painted and varnished. 1786

GREAT NOVELTY in AEROSTATION.—

A huge Aerial Tiger is filled with gas in one minute, and visits the Pit, Boxes, and Gallery, under Martial Music, at the **ERGASCOPIE THEATRE**, Lyceum, where all the superb Aerial and Musical Figures, with the most surprising optical visions refracted from nature, agreeable to Sir Isaac Newton's principles in this sublime science, may challenge the whole world to produce the like. Large bills of all the performances, and Places taken at the Print-shop, No. 319, Strand, where the Explanation of the Invisible Girls, and all the Optical Inventions are sold. Boxes 3s.—Pitt 2s.—Gallery 1s.—Begins at Eight o'clock. *Nov. 1805*

SUPERB AIR BALLOON FIGURES, at the

LARGE THEATRE, LYCEUM, together with the inimitable **ERGASCOPIE REFRACTIONS** from Nature, which is the ne plus ultra of the Phantasmagoria, agreeable to Sir Isaac Newton's Laws of Optics. The whole begins with the much admired Musical and Speaking Automata, and full Explanation of the Invisible Girl. Doors open at Seven, and begins at Eight o'clock. Box 3s.—Pitt 2s.—Gallery 1s. *April 1805*

PROJET D'UN BALLON DE 120. PIEDS DE DIAMÈTRE QUI DOIT ÊTRE ENLEVÉ A DIJON .



EXPLICATION

A. Le Ballon, B. Pivot sur lequel tourne le Cercle mouvant. C. Cercle mouvant D. Voile assujetti au Cercle mouvant. Il en existe un semblable de l'autre côté du Ballon E. Chassis sur lequel est attachée la Voile. F. Poulies sur lesquelles roulent les cordes qui servent à hisser et carguer les Voiles. G. Cordes qui servent à hisser et carguer les Voiles. H. Bec avancé de 12. pieds, servant à fendre l'air. J. Gouvernail de 16. pieds de long, en plumes mobile, sur une Charnière. K. Charnière qui attache le Gouvernail au Ballon. L. Cordes qui servent à mouvoir le Gouvernail à droite ou à gauche. M. Char des Conducteurs suspendu au Ballon.

A Paris chez Esnauts et Rapilly, Rue St Jacques à la Ville de Coutances.



Copy of a letter from Mr. Alexander Gordon, from on board the Otter sloop, dated Yarmouth-Roads, October 31. 1784

"At a time when the attention of the public is so much engaged in Aerial Navigation, I hope it will not be thought unreasonable to call their attention to the utility of a machine for that purpose, much older than the late celebrated invention of Montgolfier, viz. the Flying Kite; which, if used in the manner I am to describe, will be found a great acquisition to Nautical Navigation, and the means of preferring lives in cases of shipwreck.

"On the 11th instant his Majesty's sloop the Otter came to Yarmouth Roads on purpose to victual; but it blew so hard for the space of ten days, that no boats could come off with provisions, and ours were then on shore, and our water out; we were therefore under the necessity of quitting Yarmouth Roads to go to Harwich. The only thing that puzzled us was the method of notifying our intentions to the Captain, who was on shore, as no boat could possibly land. At last we thought of making a Flying Kite, to which we put wings and a tail, and then launched it into the air. We gave it a long range of twine, and about eight feet from the end we tied a bottle, in which was a letter for the Captain, and to the end we fastened a piece of wood, so heavy that it could not be lifted by the Kite, but light enough to be easily drawn along in the water. We were about a mile from the beach, and the Kite was five minutes in going ashore. The thing that chiefly engaged the attention of the people on the beach, was the bottle eight feet above the surface of the water, moving towards the shore, for they did not observe that it was connected with the Kite. A crowd of people assembled to look at so singular a phenomenon, who laid hold of the bottle the moment it came ashore, and on seeing a letter in it directed to the Captain of the Otter, they went immediately and delivered it; and he soon after, by signal, acknowledged the receipt of it.

Now, were all ships provided with a machine of this kind, it would be a resource when the sheet-anchor falls, and in cases where it could not be used. For by means of it a hawser might be drawn ashore, so that the people could be saved, either by veering and hauling a boat on shore or, where that is impracticable, by keeping fast to the hawser and hauling themselves ashore by it.

I am, SIR, &c.

A. L. GORDON.

A Kite Carriage.—A curious experiment was made on Hounslow Heath a few days since, with a carriage drawn by kites, invented by Mr. Pocock of Bristol. Unfortunately for the trial, there was very little wind; but even under this disadvantage, the carriage, with six persons, was, it is stated to us, drawn by the kites at the rate of eight to nine miles an hour. Though their course was only within six points of the wind, they dashed gallantly through Hounslow; but were obliged to pull up at Brentford, on account of the contrary air and the narrowness of the street. The crowd collected to witness the phenomenon was immense; the stages stopped, and one John expressed his delight that the kite carriage headed him for above a mile. It was a very warm day, and the party stopped at a public-house to take a draught of porter, when one of them called the ostler,—"I be a coming, sir."—"Give our steeds a feed."—"Where be they, sir?"—"Why up there."—"Ah, you be selling it me now."—"They let the carriage move on a few yards."—"Why, sure enough, it be so; Missis! missis! come out and see how them three kites draws this here carriage." The old lady came out; she looked a person rather inclined to give an opinion than take one.—She cast her eyes on the carriage, then on the kites, and then on the carriage again, and, clapping her hands to her sides, exclaimed, with a hearty laugh, "What a goose you are Tom! it is not the kites that draw the carriage, there are men up behind them that pull it along!" We understand that Mr. Pocock has been twenty years in perfecting his ingenious invention. He harnesses the winds, and makes them obedient to his command;—all he asks is for them to blow. In a strong breeze he travels at the rate of 20 to 25 miles per hour. He can turn as he pleases, and stop the carriage in an instant, though going down hill at the rate of 20 miles an hour. He can land, reef, and steer, and manage his kites and Cab with almost as much facility as the seaman manages his sails and rudder. He can tack and shape his course as he pleases, if the wind be *abast the beam*; that is, less than eight points, or ninety degrees. This invention is only an elegant amusement on land, but we think it susceptible of being usefully employed at sea. The deserts of Africa might be traversed by its aid, at a rate far exceeding the boasted speed of the dromedary. All that is necessary for its success is for

"The stormy winds to blow-ow-ow."—*Lit. Gaz.*

Sept. 1. 1826

(From the *Liverpool Mercury*).—The greatest novelty of the day was the exhibition of Mr. Pocock's kites, by which a boat was drawn forward at considerable speed, under circumstances which demonstrated the great utility of an apparatus, which, before Mr. Pocock took it in hand, was a mere child's toy. The experiment was made a little before one o'clock in the afternoon, from the Floating Bath, with the most perfect success. The wind was blowing from the south, and the tide coming in rapidly, when we, in company with Mr. Alfred Pocock and eight others, got on board the boat. Many persons cannot conceive how a kite can possibly draw a carriage or a boat in any but the direction of the wind; the experiment of Friday must have convinced them that a car or boat may easily be drawn by kites at right angles with the wind. On quitting the Bath, with the wind directly south, we made straight for the Cheshire shore, or due west, and returned due east to the precise spot from which we set out, having been about twenty minutes in performing the trip. We then set out again due west; and after proceeding about half way to Cheshire we returned; and before reaching the Bath we proceeded a few hundred yards beyond it, to the south,—thus beating up to windward,—a manœuvre which we have heard several nautical men pronounce to be utterly impossible by the agency of kites. It was amusing to witness the surprise of the boatmen at seeing a boat urged forward without sails, oars, or steam. The experiment has fully convinced us that, with a strong wind blowing from the north or south, a boat furnished with one of the largest pair of the kites could cross from Liverpool to Cheshire, and return, without making much lee way, whatever might be the state or strength of the tide. We ought to have stated that the boat in which the experiment was made was a heavy two-masted one,—not at all adapted to the purpose. Since the regatta-day we have been several times with Mr. Pocock, jun. on the river, witnessing his surprising and most interesting mode of manœuvring his kites. On one occasion, with the wind at N. W. we ran from the Floating Bath to the Rock Ferry; and the boatmen assured us that our course during the trip was frequently less than five points from the wind.

July 20. 1820

AEROPLUSTICS, or NAVIGATION in the AIR.

It may be recollectcd, that about three or four months since, we copied several paragraphs from the *Berkshire papers*, describing the strange phenomenon of a carriage drawn by kites having been seen making its way rapidly along the western road, if we recollect right, between Reading and Windsor. The statement made was, that the vehicle in question was seen running with several persons in it, at the rate of near 20 miles an hour; and that it passed the carriage of the Duke of Gloucester on the road, the horses of his Highness being unable to keep pace even at a gallop. This story, which many persons at the time took for a hoax, extraordinary as it seems, was nevertheless, we believe, in most of its material circumstances, true; and the contriver of the very novel machine in question (for which patents are said to be taken out in London and Paris) has just published a book descriptive of his invention, scarcely less strange and eccentric than the discovery itself. The account which this gentleman, however (Mr. Pocock, a schoolmaster of Bristol), gives of the origin and course of his "aéroplustic" efforts is curious; and, whether the invention may ever be applied to any purpose of practical utility or not, will be interesting to a great many readers. There are some circumstances set forth in it, which, as Mr. Pocock himself confesses, have a little staggered ordinary people's belief; and this is a result which does not very much surprise us. We shall give the facts, however, as we find them, as generally as possible in the words of the author.

After describing the circumstances which first suggested to him the idea of applying the propelling power of kites to ordinary purposes, Mr. Pocock says—desiring naturally to increase the force of the machine in the first instance, as commonly applied and constructed, as much as possible, "I conceived an entirely new plan."

"I procured a second paper kite, and flying up the first till it would carry no more string, I tied the end of the first kite string to the back of the second kite, and letting that up with its own length of cordage, my uppermost kite triumphed over all competition. At length it was discovered, that by attaching several kites, one after the other, each having a considerable length of twine, that the kites might be elevated above the clouds; and the power of their draught increased to almost any extent."

Upon this, after going through a variety of labours, during which a variety of improvements suggested themselves,—such as making the kites jointed, in order that they should be more portable when of a large size, covering them with linen instead of paper, that they might be proof against the weather; and furnishing each with a secondary string called a *brace line*, the effect of which was to regulate the draught of the machine by changing the position from horizontal to vertical, or *vice versa*, in the air, Mr. Pocock at length succeeded completely in ascertaining that his kites might be made applicable to the purposes of draught; and in the course of his practice some of the accidents already alluded to occurred, which probably will surprise most readers as much as they did the very active projector himself.

"On one occasion the kite's string was attached to the end of a board about six feet long and six inches wide; on this quickly-made sledge one of my sons seated himself. On letting go the string the sledge was instantly hurried away so unexpectedly, and with a velocity so great, that all attempts to overtake it were fruitless. Mazzepa's wild horse was as easy of control. The young solitary Lapplander courageously kept his seat, the kites dragging him and his novel vehicle over hillocks and ruts, and beds of furze, till he arrived at the opposite extremity of the Downs, and descended upon his well-poised sledge into a stone-quarry. By which first perilous journey it was learned that no horse or rein-deer, in car or sledge, could successfully compete with kites in speed, but also that no mode of travelling could be more dangerous, unless the kites could be controlled, and the vehicle directed or stopped."

On another occasion a sailing trial was made.—"On Charleston-pond, an extensive sheet of water belonging to the Earl of Suffolk, the use of that nobleman's pleasure-boat being kindly granted for the purpose; when it was proved beyond doubt that the kites might be applied with certain success. As in making the first trial by land, an unexpected occurrence took place, so did something of a similar nature happen on this occasion. While scudding along under our buoyant sails, an oar had dropped overboard, and having no means of stopping the boat, we traversed to the nearest shore; there the kites were given in charge to three country boys, while we great cry from the lads on shore; they had been returning, we heard a great cry from the lads on shore; they had been dragged by the kites close to the water, into which, but for the interposition of some young trees, they must inevitably have been drawn."

In the end, an experiment with the author's family car, which was drawn "with a full party upon turf," settled the question in the writer's mind completely that carriages might be put into motion with kites; and he then proceeded, first by increasing the power of his engines, and then by inventing a particular description of car, more convenient than a common chaise, to be drawn by them, until at length he arrived at sufficient maturity to beat the Duke of Gloucester's carriage in a trial of speed—an operation which he describes—on the road near Windsor.

We have already noticed the *brace line* by which Mr. Pocock's kites are made operative or inoperative in the air at pleasure. Another invention affords the means to the traveller of directing his course with these machines, instead of running directly whichever way the wind may be disposed to carry him.

This branch of the system consists in the application of two *side lines*; one attached to the right hand extremity of the kite, the other to the left. These act upon the kite much as the reins do upon a gig horse; by pulling the right hand line, an obliquity is given to the kite's surface, on which obliquity the wind acting, the kite veers instantly to the right hand; straining in the left hand brace, the motion is directly *vice versa*. By this movement, trees and other obstacles are avoided, and many advantages obtained."

The power of a kite 12 feet high, with a wind blowing at the rate of 20 miles an hour, is described to be as much as a man of moderate strength can stand against. With a rather boisterous wind, such a kite has been known to break a line capable of sustaining a weight of 200. These may serve as standing ratios, from which the power of larger kites may be deduced.

The purposes to which Mr. Pocock expects his kites to be applicable are various. He uses them to draw carriages—to propel ships—to carry a rope to land from a stranded vessel—and particularly to carry persons up into the air, for the purpose of crossing rivers, scaling walls, making observations, &c. &c.

Upon the first of these points, recent experiments are said to prove, that in a perfectly dead calm at sea—taken with reference to the state of things existing on the level of the earth's surface or of the water,—at the height of 150 yards in the air, a current of wind at the rate of 16 miles an hour is frequently floating; a kite elevated into that current, would propel a vessel when her sails below were utterly useless.

In cases of shipwreck, the author's kites are to be found particularly advantageous; inasmuch as a rope, or a grappling iron, may not only be conveyed to shore by them, but—

"Should it be deemed more expedient at once to send a person on shore, he may be borne above the bursting billows, and alight like a bird or messenger of good from the flood, on the cliff or beach, according to the position of the wreck."

Again, as it might so chance that female passengers or children were in such vessel, in that case—

"What mode so desirable, as to swing them securely in a hammock or cot, and thus transport them, as an ark of safety, above the foaming billows, and land them above the spray, dry shod upon the shore!"

In the same way,

"These kites having power to elevate one in the air, will serve for observatories, scaffolds for passing over rivers, for telegraphic information, and for signals by night and day. Elevated in the air, an observer could view all that was passing in a circumference of many miles, overlooking hedges, houses, and the minor irregularities of the earth's surface. In the pursuit and retreat of armies, from this flying observatory, all the movements and manœuvres of the enemy might be distinctly marked."

And to remove all doubt not merely as to the feasibility but as to the perfect convenience of all these ceremonies, it is stated that the ascension described has been actually made. The assertion is put rather obscurely, and with no detail as to the manner in which the experiment was conducted; but it is distinctly stated, and in terms, that the thing was effected; and that

"The author's daughter, who earnestly claimed from him the daring honour, was the first aéroplust."

The remainder of the book—overlooking some poetical notices of the author's invention—is chiefly occupied by descriptions of the manner in which his patent kites are made to work with a *side wind*; and with the accounts of different trials, in which the *char volant*, or kite carriage, has been used.

"The author does not commit himself, by asserting that this mode of travelling is the most safe and expeditious ever discovered. Mile after mile has been performed at the rate of twenty miles an hour, timing it with chronometer in hand."

"On Tuesday, January 8, 1827, a mile was performed over a very heavy road in two minutes and three-quarters; and on the same day, several other miles in three minutes each. This was between Bristol and Marlborough; and the wind was not furious, neither were the kites sufficiently powerful for the state of the roads."

On another occasion, we learn that the *char volant* beat a London stage-coach, by a difference of twenty-five minutes in a distance of 10 miles.

The construction of the *char volant* is described; but without the plate annexed, it would be impossible for us to make an extract intelligible. As the inventor wishes to obviate every objection, however, and as it will be evident that a person could not make a journey in a kite carriage, and return with the same wind by which he went, to make everything complete, a platform has lately been added to the back of the kite vehicle, upon which the traveller may carry his return horses along with him.

"This accommodation consists of a low platform, with two wheels attached, behind the *char volant*. The whole being drawn by the kites, the cattle are quite fresh to perform their duty, and to return the favour of giving back-carriage to their winged associates, or of helping them forward, should the wind fall. Thus the equipage is rendered complete!"

In conclusion, the author suggests particularly, that as his kite carriage bears lighter upon the ground than any other description of vehicle, from this circumstance, as well as its rapidity of conveyance, it would be peculiarly well suited to any expeditions of discovery hereafter to be undertaken in Arabia or Africa; and might lead to results in those regions more favourable than even our most sanguine hopes can have anticipated.

Dec 29 1827

ELECTRICAL KITE.—Mr. Sturgeon says on Friday last, about half-past two in the afternoon, clouds began to form in various quarters of the heavens in rapid succession, from mere specks or streaks to immense groups, with every appearance of being highly electrical. I repaired to the Artillery Barrack grounds with an electric kite, and in a very short time got it aloft, letting out string through the hands from a coil or cue which was thrown on the ground. When about a hundred yards of the string had been let out, a tremendous discharge took place, which gave me such a blow in the chest and legs that I became completely stunned, let go the string, and consequently the kite soon fell. The accident was owing entirely to my own neglect, and could not possibly have happened had I taken the following precaution. Let all the string intended to be employed be first taken off the reel or coil, and stretched on the ground. Let now the insulating cord, riband, glass, or whatever is used for this purpose, be attached to the kite string and fastened to a peg, tree, or anything intended to hold the kite during the time it is up. Next fasten the kite to the other end of the string, and let it ascend from the hand.

1818

The Literary World:

A JOURNAL OF POPULAR INFORMATION AND ENTERTAINMENT.

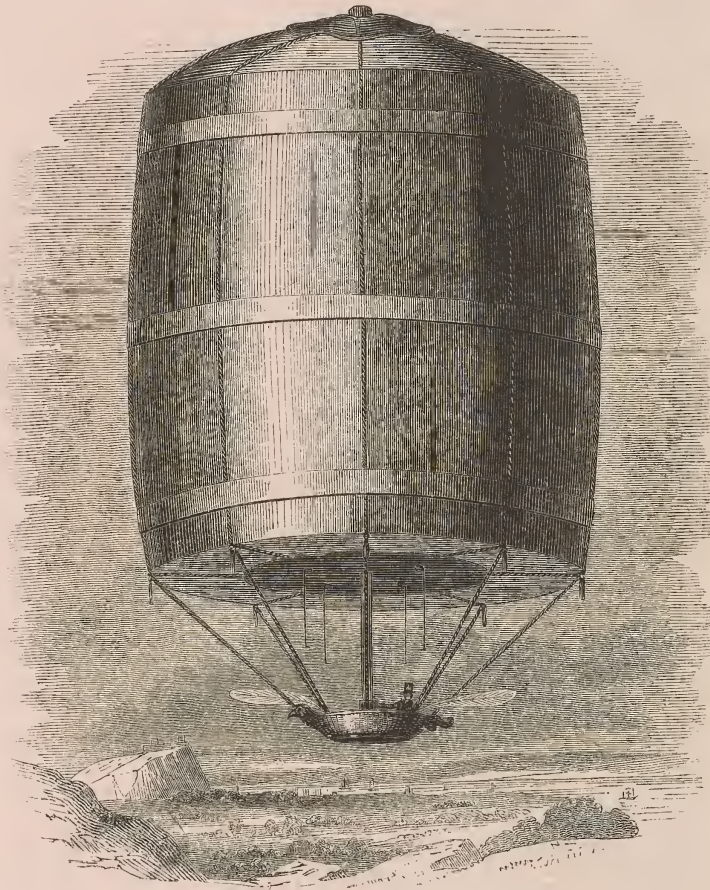
CONDUCTED BY JOHN TIMBS, ELEVEN YEARS EDITOR OF "THE MIRROR."

No. 70.]

SATURDAY, JULY 25, 1840.

[Price 2d.]

THE FIRST AERIAL VOYAGE IN GREAT BRITAIN.



THE EDINBURGH FIRE BALLOON.

(From a Ticket in the British Museum.)

VOL. III. 8

Printed by Whitehead & Co. 76, Fleet Street, London.

Edinburgh, August 27th, 1784.

Mr. Tytler has made several improvements upon his fire balloon. The reason of its failure, formerly, was its being made of porous linen, through which the air made its escape. To remedy this defect, Mr. T. has got it covered with a varnish, to retain the inflammable* air, after the balloon is filled.

Early this morning, this bold adventurer took his first aerial flight: the balloon being filled at Comely Garden, he seated himself in the basket, and the ropes being cut, he ascended very high, and descended quite gradually on the road to Restalrig, about half a mile from the place where he rose, to the great satisfaction of the spectators. Mr. Tytler went up without the furnace this morning; when that is added, he will be able to feed the balloon with inflammable air, and continue his aerial excursions as long as he chooses.

Mr. Tytler is now in high spirits, and, in his turn, laughs at those infidels who ridiculed his scheme as visionary and impracticable. Mr. Tytler is the first person in Great Britain who has navigated the air.

Mr. Tytler, in accordance with the concluding portion of the letter, is entitled, as Mr. Monck Mason correctly states, to the triple distinction of being the first native of Great Britain who achieved an aerial ascent; of having accomplished the first aerial voyage in these realms; and, with the exception of a recent experiment,† the only person, upon the principle of the original inventor, in which the agent of the ascension was atmospheric air rarified by the application of artificial heat; and, notwithstanding the unquestionable testimony afforded in the above-quoted papers, this event has been disallowed or overlooked by all who, previously to Mr. Mason, had professed to chronicle the progress of aerostation. It is pitiable to observe with what obstinacy the several

* As Mr. Monck Mason observes, the application, here, of the term inflammable, is, evidently, an error of the writer, arising from an ignorance of the real meaning of the word, and an incorrect association between the material and the cause of its production.

† Mr. Sneath ascended in a balloon of his own construction, from Bleak-hill, near Mansfield, on the night of May 24, 1837, being the only instance on record, as Mr. Mason states, in which, with the exception of Mr. Tytler's from Edinburgh, such an expedient has succeeded in any part of the British dominions. After being in the air two hours, the balloon began to descend; and, at eleven, the grapnel took effect in a hedge, near the village of Spondon. Apprehensive of the escape of the balloon, should he quit it, and fear of allowing the fire to abate, lest, no longer able to support itself, the balloon might fall upon the furnace, and be consumed, he was compelled to continue in the car till half-past four on the following morning, when some workmen, passing by, came to his assistance, and relieved him from his dangerous situation.

writers upon the subject have perverted the admission of this ascent, and concur in ascribing to Lunardi the merit of having accomplished the first aerial voyage in this country; whereas he did not ascend till September 15th following. It may, probably, be urged, that Tytler's ascent was not attended with any of those astounding circumstances by which the exploits of the earlier aeronauts were generally signalized: neither was the distance run over, nor the rate at which it was accomplished, such as to entitle it to particular notice on the score of these attributes. To regulate the merits of an ascent according to such a scale, would, however, be most unjust; these are, in fact, matters wholly dependent on circumstances over which the individual can have no possible control; and many instances might be quoted of experiments, remarkable enough in other particulars, which, in these, might be considered as singularly deficient. Were such, in fact, to be taken as the test of admission to the honours of aerostation, Pilatre de Rozier and Arlandes must relinquish the glory of the first aerial flight, whose utmost stretch did not exceed 5,000 toises; and the celebrated ascent of Joseph Montgolfier, in the Grand Montgolfière, at Lyons, must be erased from the list; as, in that, the distance accomplished was even inconsiderable to that achieved by the Edinburgh Fire Balloon.

B.

We are indebted for the Drawing whence our wood-cut is derived, to Mr. Edward Spencer, jun., the eldest son of the distinguished aeronaut, Mr. Edward Spencer, so often the associate of Mr. Charles Green in his aerial expeditions.

Madame Thible, the first female aeronaut, and possibly the only woman who has ascended in a fire balloon, did so in a Montgolfière, from Lyons, June 4, 1784, in company with M. Fleuraud, in the presence of the court, and of Gustavus, King of Sweden, then travelling under the fictitious name of Count Haga.

The numerous aerostatic attempts during the year 1784, occasioned the following amusing lines, entitled

The Air Balloon.

By land let them travel, as many as list,
And by sea, those who like the hard fare;
In an airy balloon whilst I sit at my ease,
And pleasantly glide through the air!
Round this globe, the farthest they ever can reach,
Let them travel night, morning, and noon;
Such excursions as these are but mere bagatelles,
When compared with a trip to the moon!
In my chariot aerial, how pleasant to go,
To see all my friends in the stars:
Take a breakfast with Mercury, and dine, if I please,
With Jupiter, Saturn, or Mars!
And should I fatigued or wearisome prove,
When from planet to planet I'm dodging;
With Venus I'm welcome to stay all the night;
Where on earth can you find such a lodging?

EDINBURGH FIRE BALLOON.

Air balloons, the principle of which was known to Favorinus and the ancients, more than two thousand years since,—as we are told, by Aulus Gellius, lib. x. c. xii., that Archytas, a scholar of Pythagoras, made a wooden pigeon, that could fly, by means of air enclosed within,—were again brought into notice by Stephen Montgolfier, by the accidental circumstance of the paper cover of a conical sugar-loaf, which he had flung into the fire, becoming inflated with smoke, and remaining suspended in the chimney; which thus impelled in the ingenious Frenchman the first thought of the fire balloon, designated, from his name, the Montgolfière. Etienne Montgolfier, the original discoverer, never ascended; at least, so as to come before the public in the character of a practical aeronaut. Joseph Montgolfier, his elder brother, Pilatre de Rozier, and five others, ascended in the Grand Montgolfière, at Lyons, Jan. 19, 1784; but the immense machine took fire,* and the aerial voyagers descended without injury, in about fifteen minutes: any further attempts by the Montgolfiers, as practical aeronauts, are not recorded.

In Scotland, some interest appears to have been excited by the popular rage respecting balloons; and the earliest attempts emanated from a chemist, at Edinburgh, named Scott, who, on Friday, March 12, 1784,† let off, between two and three o'clock in the afternoon, from Heriot's Gardens, an air balloon, of about three feet and a half diameter; the colour, a light green. It took about six minutes and a half in ascending, before it disappeared altogether; and would have gone out of sight much sooner, had it not been for a black cloud, in the midst of which it appeared like a star, and was really taken for such, by some gentlemen at the Cross. The day was extremely favourable, the wind moderate, and at west a point north; so that the balloon went in the direction of east by south; and was taken up near Haddington, about twenty miles from Edinburgh. The crowd of spectators on the occasion was immense. On the 17th,

* According to the information of M. de la Lande, editor of the *Journal des Savans*; but, according to others, by a rent, or burst, near the top of the balloon.

† The celebrated Phillip Astley, by a singular coincidence, on the same day, "launched an aerostatic globe [or balloon], in St. George's Fields, in presence of a greater number of spectators than were, perhaps, ever assembled together on any occasion." The writer in the *Gentleman's Magazine*, p. 228, who notices this fact, observes: "Many of the spectators will have reason to remember it; for a more ample harvest for the pickpockets never was presented. Some noblemen and gentlemen lost their watches, and many their purses. The balloon, launched about half-past one in the afternoon, was found at Feversham."

Mr. Scott let off another balloon, which rose more perpendicularly than the former, and continued in sight about thirty minutes. Several other balloons were started in the same month, from other places: one, launched from the Observatory of Aberdeen, went the distance of thirty-eight miles, in the space of half an hour.

The fame of the Grand Montgolfière inspired another adventurer, in the person of Mr. James Tytler, a chemist, also, in Edinburgh, who superintended the construction of a balloon on the Montgolfier principle, and appears to have exhibited it as the EDINBURGH FIRE BALLOON: the price of admission was three shillings.* An Edinburgh journal, for August, 1784, records—"James Tytler, chemist, in Edinburgh, has been, for some time past, employed in the construction of a fire balloon. Its dimensions are about forty feet in height, and thirty in diameter. It was the intention of the projector to have ascended, with his balloon, about the beginning of this month, during the race-week; but things not being in that forwardness and the perfection he expected, he was obliged to postpone his aerial journey. On the morning of the 27th, however, he made a decisive experiment. About five o'clock, the balloon was inflated, and soon manifested a disposition to ascend. Mr. Tytler took his seat, and, with inexpressible satisfaction, felt himself raised, with great power, from the earth. The machine entangled itself among the branches of a tree, and by a rope belonging to the mast which raised it, so that its power of ascension was greatly weakened. However, when the obstacles were removed, it ascended, rapidly, to the height of three hundred and fifty feet, as measured by a line left hanging from the bottom of the basket. The morning was calm; and, as no furnace was taken up with it, the balloon, therefore, went but a small way; it soon descended to the earth, without any damage to the projector, who, in testimony of his security, returned, while in the air, the huzzas of the spectators; and, on his return, was overwhelmed with their congratulations."

In addition to this very circumstantial account, there is extant a letter from one of the spectators, dated on the day of this ascent:

* In the very extensive collection of "tickets to places of public amusement," formed by Miss Banks, the sister of Sir Joseph Banks, and now deposited in the print-room of the British Museum, is a ticket of this exhibition, with the autograph of the exhibitor; and a manuscript memorandum on the card, that the balloon was "constructed by Mr. William Brodie." A portrait of the aeronaut, Tytler, is among the portraits etched by Andrew Kay, the quondam artistical-barber, at Edinburgh.



J. Mulvany pinx!

Engraved by Robt. Havell & So

*The descent of M^r LIVINGSTON on the Coast of Baldoyle, County of Dublin, on Thursday, the 27th of June 1822, on which day he ascended from P
Peto bello Barracks, for the benefit of the suffering Poor of the South & South West of Ireland.*

London Published Oct^r 1822 by R. Havell, 3 Chapel Street, Tottenham Court Road, for T.J. Mulvany.

Extract of a letter from Bath, Jan. 10. 1784.
 "This day, a little after twelve o'clock, Dr. Parry, a very ingenious Physician of this city, let fly, from the Area of the Crescent, an air-balloon: While it continued in flight, it ascended gradually, at the same time that a gentle breeze wafted it horizontally towards the Severn, which river it will probably cross, and descend among the astonished Peasants, in some part of Wales. Dr. Parry not only well timed the flight of his balloon, but it was also well placed, for it rose before the windows of the Duchess of Devonshire's house; and as her Grace does not go from home at present, it was an attention, which in a most particular manner delighted the writer of this, as he had a few hours before received from her Grace's hands a heavy rouleau of gold, to be disposed of in a manner he is not at liberty to relate, further than that it was to comfort the afflicted."

Our Correspondent at Bath has favoured us with the following account (which he had from the ingenious constructor, Dr. Parry) of the Air Balloon, lately let off at Bath, as mentioned in our last:—It consisted of two hollow cones, joined together by their bases: The circumference of the common base was upwards of 17 feet; the height of the upper cone three feet, and of the lower five and a half. The materials of which it was made were taffety and sarinet, of which it took about 18 yards of 3 quarters of a yard wide; it was varnished with the common drying oil of the painters, which is nothing more than linseed oil boiled with litharge. From the dimensions specified above it appears, that the balloon was capable of containing something more than 72 cubic feet of air, without making any allowance for its approach to a spherical form on distention, which, in reality, seemed to increase its solid contents at least one fourth. The inflammable air with which it was filled, was supplied from iron shavings and concentrated vitriolick acid, of the former of which were employed 17 pounds, and of the latter 36 pounds, with a proportionable quantity of water. It was eight hours and a half in filling with air to such a degree as to float, which it did when it was less than two-thirds full.—It was let off in the field before the Crescent, in the presence of a numerous concourse of spectators. For near two minutes it arose smoothly and with increasing velocity in a direction very nearly perpendicular; after which, still ascending, it bent its course with the wind almost due West, and at the end of two minutes and three quarters from the beginning of its ascent, totally disappeared.

Hereford Journal. Jan. 22. 1784

Extract of a letter from Plymouth, Feb. 15. 1784.
 "Thursday, Feb. 12. This forenoon, at Coxside prison yard, Mr. Dinwiddie, of Edinborough, launched an air balloon, of 15 feet in circumference; the weather being fine, it ascended gradually for some time, and in about four minutes and a half, it was left in the clouds. The wind being N. N. W. it is imagined, it fell in the channel; the concourse of spectators to see this grand experiment, was astonishing; there were 1000 who paid one shilling admittance into the prison yard; and the citadel ramparts, the masts of the ships in the pool, and the surrounding hills, were covered with thousands of people, from all parts of the country.

"Friday, Feb. 13. From six o'clock this morning, till six o'clock in the evening, there was the most astonishing snow storm ever seen in this country, in many of the streets of this town, the snow was from 12 to 16 inches deep, and where drifted in the roads near this town, it was from six feet to ten deep. At Tory Bridge, about eleven miles on the Eastern Road, it was ten feet deep. The diligences, which set off from the Prince George's, London Inn, &c. for Exeter, were obliged to put up there, as the roads were utterly impassable for carriages.

1784
 Extract of a letter from Oxford, Feb. 28.

"You have heard a great deal lately of Air-Balloons, but most of the makers have been very reserved as to their method of constructing and filling them, Mr. Rudge is an exception to the charge. This gentleman, with a frankness which does honour to his disposition, has given us the necessary information on both these heads.

"The Air-Balloon constructed by him, and launched from Queen's college on Thursday the 19th, ascended exactly in a perpendicular direction, with a steady uniformly accelerated motion, and in seven minutes totally disappeared. The string was cut at a quarter past one o'clock, in the presence of a numerous concourse of spectators, at which time the sky was perfectly serene; and we learn that it fell the same afternoon, at a quarter before three o'clock, in a field belonging to Mr. Joseph Badcock, of Pyrton, near Wallington, in this county.

"This balloon was composed of 23 yards of red and white Persian silk, pieced alternately, so as to appear like meridional lines upon a terrestrial globe. The varnish with which it was covered is prepared in the following manner:—To one gallon of linseed oil add two ounces of litharge, two ounces of white vitriol, and two ounces of gum sandarach; boil these for about an hour over a slow fire; when cool, strain it off, and mix it with an ounce and a half of the spirits of turpentine. The seams were covered with a solution of the elastick gum in the above composition.

"The form of this Balloon was spherical, fifteen feet in circumference, and capable of containing upwards of sixty-five cubick feet of air. Nineteen pounds of iron filings, and forty pounds of the concentrated vitriolick acid, with a quantity of water in proportion to the latter as five to one, produced a sufficient quantity of gas to fill it to such a degree as to float, which it did, when about two-thirds full.

"The apparatus made use of for filling it consisted of two casks, connected together by a copper cyphon; through an orifice in one of them were introduced the materials which produced the factitious air; and from the other, which was nearly filled with water, projected a long metal tube, to which the balloon was fixed."

Wednesday a machine, nearly upon the plan of that constructed by Mr. Moore a few years since, was exhibited upon the Serpentine River. The inventor called it an Ice Balloon, and it travelled with amazing celerity, having a sort of keel made of iron, and being impelled forward by a spring, giving motion to a wheel at the front of the carriage. The novelty of the invention induced several people of fashion to ride in the above machine, and several of them handsomely complimented the Proprietor for his ingenuity; but the price demanded was but the moderate sum of one penny from each passenger. A hog was roasted whole upon the ice the same day, and afforded an extempore meal to a great number of people. Feb. 1784

36. South Audley St.
23. Sept. 1840.

Dear Sir,

You expressed a wish, that I should
commit to writing the Anecdote I mentioned
to you of having myself seen the first Bal-
loon ascend which had ever crossed the Eng-
lish Channel. — It was sent up at my Na-
tive place, Sandwich; and was made by
Mr. Boys, the well known Historian of that
Ancient Cinque Port. — The Balloon was
a small one — about 4 feet in diameter: —
and I well remember seeing it mount from
St. Clement's Church Yard, where a large ^{con-}~~for~~
^{=course}~~tion~~ of the Inhabitants of the Town had as-
sembled to witness a spectacle then so un-
usual, & so interesting from its novelty. —
The situation was well selected for such a

The date was 22 February 1784; the
balloon landed at Lisle.

purpose, being the highest ground within the Town Walls. — Mr. Boys filled the Balloons in the Church Porch; and I have a very distinct recollection of seeing him bring it out & launch it into the air with his own hands. —

The day was cloudy; with a strong wind blowing from the West or thereabouts. —

The Balloon came down somewhere near Gravelines. In compliance with the request written on a parchment label attached to it, notice was sent to Mr. Boys of the time & place of its descent. — Having been then but a boy, I cannot with precision tell you the date: my impression is, that it was in March 1784. — You may however rely on the fact, that this was the first Air Balloon which crossed the Channel. —

Believe me

Believe me to remain

Dear Sir

Sincerely Yours

Keiths Milnes

To

William Upcott Esq.

Extract of a letter from the Hague, Dec. 19. 1783. Yesterday, at one o'clock in the afternoon, the Sieur Dillon let go, in the Court of the Stadtholder's palace, an aerostatic Balloon, of his own invention entirely, as to the matter which composes it, and the agent which put it in motion. This Balloon, the smallest of all those at present known, is neither made of paper, taffety, or linen, but a composition of the bowels of animals. The inflammable air with which it was filled, is extracted from zink. So that the Sieur Dillon hath not employed, in this experiment, either the methods of M. de Montgolfier or those of Messrs. Charles and Robert. This balloon is about the size of a common drum, its solidity four cubic feet, its colour pearl, and its whole weight half an ounce.

A Description of the Flying Machine, called The BRITISH MECHANICAL BIRD, now exhibiting in Hart-street, Covent-garden, and in which the inventor actually engages to Fly, is given in the Third Edition of THE AIR BALLOON, showing the natural causes which influence an Air Balloon; and the particular construction, materials and methods of filling it with Inflammable Air; also the great variety of probable uses it may be applied to. Printed for G. Kearsley, at No. 46, in Fleet-street; Debrett, in Piccadilly; Bew, in Paternoster-row, and Sewell, in Cornhill: Price One Shilling, with a Frontispiece. M. Ches. Jan. 7. 1784

Extract of a letter from Shaftesbury, Jan. 24. 1784. "Tuesday afternoon last, about four o'clock, an Air Balloon, ticketed from Bath, fell in a field in the parish of Farrington, near Sturminster-Newton, in this county, to the no small consternation of the neighbouring villages, which it passed over at the height of about 40 yards. It fell in a field among a parcel of cows, who gathered round it with hideous bellowing. The farmer and his men agreed to attack it; seeing it bounding on the ground, they concluded it to be some monster come to carry off the cattle; one of his men, more courageous than the rest, went to it, and secured it by tying it to the railing of a rick. The curiosity of the country for six or eight miles round was never more raised than by this Air-Balloon."

Feb. COVENT-GARDEN. FOURTEENTH NIGHT. 1784. AT the Theatre-Royal, Covent-Garden, THIS EVENING. Will be performed a New Comedy, called MORE WAYS THAN ONE. After which will be performed, 3d time, a New Pantomime, Called HARLEQUIN RAMBLER; Or, The CONVENT in an UPROAR. In which will be introduced, for the first time, a Theatre, A REAL AIR BALLOON. To-morrow, will be performed the Opera of Artaxerxes. On account of the great number of Ladies and Gentlemen, who were disappointed of places last night, Mrs. Abington will perform Lady Betty Medish, for the 4th time, on Friday next. On Thursday, Mrs. Crawford will perform Almira, in The Mourning Bride; Zara, Miss Young. In a few days will be produced a Tragedy, (altered from Lillo's Fatal Curiosity) called The Shipwreck.

A correspondent says, he is informed that the real Air Balloon which was so well received at Drury-Lane Theatre yesterday evening, in the Pantomime Entertainment of the Magic Cestus, has been for some time projected, and would have been produced in that Entertainment on Tuesday last, but from an accident which happened in the filling of it. Feb. 5. 1784. Last night a real Air Balloon was let off in the pantomime of Harlequin, Jun. or the Magic Cestus, at Drury-lane Theatre; under the sole direction and management of Mr. Clemenson, Balloon and Umbrella-maker, in the Strand.

The balloon hat, at present the rage among the women of mode, is beginning to be officially scouted at some of our public places. At Bath, Mr. Dawson, the Master of the Ceremonies, has proscribed them from his rooms; and tho' they still are admitted at Covent Garden and at the pit of the Opera, yet at Drury-lane a better decorum prevails, and the box-keepers fail not to enforce the orders given them, of refusing admittance of any hat into the side boxes. Among other persons who have been thus subject to this necessary regulation, was Lady Derby, who with great good humour acquiescing in the standing order, pulled off her Balloon Hat, and sent into the Green Room to borrow a cap during the continuance of the play. Feb. 1784

AIR BALLOON HATS, either trimmed or plain, or the wires to make them, may be had, in the greatest variety of colours, at HARTSHORN and DYDE's, Wigmore-street, and in the Circus, Bath; where likewise may be seen a large quantity of particularly fine Goat's-beard Muffs, from two to three guineas; mock Point or worked Gauzes, in a variety of patterns, from 12d. to 18d. a yard; Malbrook, Balloon, and other elegant Fans, sold for one half the price they are at the Fan Shops; Dresses and Undresses Hoops, from 18d. to 15s. Silk and Stuff Straw Coats, made in a particular light manner; a large quantity of new long two yards wide Aprons, at 3s. 6d. &c. &c. Goat's-beard Muffs cleaned, to look as well as when new. N. B. Soufflés Gauzes, in entire new patterns, that look as well as fine Blonds. 1784

Balloon Hats now adorn the heads of such of the parading impures as can afford them; whilst the more inferior tribe have invented a hat which is, not improperly, called the *bastard balloon*!—being a humble imitation of the green-box balloon, and destitute of feathers. These balloon fashions are about their zenith, and must soon burst and be forgotten! 1784

Extract of a letter from the neighbourhood of 5. Mar. Cheadle, in Staffordshire. 1784. "We have had an extraordinary accident in this parish, which being something uncommon, I will trouble you with a short relation of it: On Tuesday the 17th inst. two sons of Joseph Warrilow, the tenant at Painsley-hall, happened to see that curious machine called a balloon floating in the air, descending very fast, which they immediately went in pursuit of, and found it in a large marle-pit, and as it had a considerable motion upon the ice, they thought it a very strange creature; and a curious dialogue ensued, which ended in calling some more assistance, who seized and carried it to the farm-house, and put it into a large chamber, where it was viewed by the family with much surprise. After the wife and daughter had left it, the two young men and two labourers formed the resolution of trying to restore it to its pristine shape, for as it had lost a considerable quantity of air at a small aperture near the crown or top of it; they said it was like a half-blown bladder; and to accomplish their design, they applied a pair of bellows and soon filled it. They had previously tied up the aperture, but perceived that it still lost air near the place which they had before endeavoured to stop, and as they were preparing to secure it a second time, though a candle which one of them had in his hand was not nearer the balloon than two feet, the escaping-inflammable air, with which it was originally filled, instantly took fire, with an explosion much louder than a cannon, which struck the four persons down on the floor. They soon recovered from the fall, but were so stunned, as not to be sensible of fire till they perceived their heads in a blaze, their beards and eyebrows were burnt quite off, and their faces terribly scorched. However, they are under the care of a surgeon, and likely to do well. Such was the force of the explosion, that it burst two double transom windows in pieces, and threw the lead and glass thirty yards against a yew hedge, made its way into an adjoining room by displacing a wainscot partition, and forced out the windows; it likewise passed into an adjoining gallery, broke up a board in the floor, passed to the end of the gallery to a door, which it forced open, broke a window, and carried it to a considerable distance. "The men probably escaped with life, by the room giving way, by which the inflammable air had room to expand. The explosion above described, was similar to the effects produced by the firing inflammable air in the mines; which is a danger which I have not seen any mention of in respect of these modern machines; which I think should be made public to prevent similar accidents. "N. B. This balloon was let off by Mr. Gell, of Hopton, near Matlock, in Derbyshire, about 25 miles from the place where it was found."

An Air-Balloon, of a very unusual Magnitude, is getting ready, and is to be let off by his Majesty in Kensington Gardens, in the Course of a few Days. Mar. 19. 1784

Extract of a letter from Deal, March 31. 1785. "Wind W. Came down and sailed the John, Hayles, for Liverpool. "Remain the Air Balloon, Campbell, from Cork for Yarmouth; Mary, Jimima, Peters, from Plymouth, and Scout sloop."

An air balloon is making at Nantees, in France, upon an entire new plan: it is made of the membrane of an animal, a new discovery and a secret, and is to be filled with gas never yet used or made. Two experiments have been made with small ones, which have answered infinitely beyond expectation. Four men, besides the inventor, are to go up with provisions for a fortnight's voyage. It is remarkable that this person has found out a means for preventing the least escape of the air, or change of it. April 1784

An Air Balloon of four Feet in Diameter, filled with inflammable Air, was sent off from Sandwich, in Kent, on Friday, Feb. 27, at about forty Minutes after Twelve o'Clock, and was found the same Day at Three o'Clock in the Afternoon, at Warneeton, a Town in French Flanders, on the River Lys, six Miles from Menim, and between Lille and Ypres. The lineal Distance between Lille and Sandwich, is 85 1-half Statute Miles, from which we must deduct nine Miles, which Warneeton is short of Lille, (in the Direction nearly of the Balloon's Course) and there will remain 74 1-half Statute Miles, for the lineal Distance between Warneeton and Sandwich. The bearing of Warneeton to Sandwich is about five 1-half Points of the Meridian, or nearly S. E. by E. Apr. 3. 1784

A balloon is at present constructing at Bruffels, for an aerial voyage to London, which will be so formed, as to escape every accident or failure that has yet happened. It is to be filled with inflammable air; and to carry up four persons; the size not so enormous as some others; but furnished with sails and a rudder of taffety. Every sort of provision is to be made, and stores laid in against accidents; also means prepared to remedy slight rents. The Duke d'Arenberg is at the expense of it, under the direction of Abbe Man, an English resident at Dixmuyd. The Duke will mount in it, with the Abbe, and two other philosophers. April 1784

Extract of a Letter from Newcastle, April 10. 1784. A Letter has been received in Town, signifying that the Air Balloon which was launched on the Forth Bowling-Green on Thursday Week, at Half past One in the Afternoon, by Mr. C. Clarke, was taken up at Three the same Afternoon near Wakefield, in the County of York, by which it appears, that in an Hour and a Half it travelled 133 Miles; by far the greatest Voyage we have heard any Aerostatic Machine ever made."

Extract of a Letter from Ayton (Berwickshire), April 26. 1784. "On Thursday the 15th inst. there was found a balloon upon the farm of Paul Darling, Esq. about two miles from this place. It was perceived by two country-boys floating in the air, who, upon its coming to the ground, ventured to approach it; and, foolishly conceiving it to be a whale's bladder, they got it upon their cart, to bring it home. A woman whom they met, perceiving it to be made of silk, and supposing it might be cleaned by boiling, persuaded them to give it to her, and enjoined them secrecy; but, within these two or three days, the matter has been discovered. Had it fallen into the hands of any sensible person, they might perhaps have made a discovery from whence it came, and the time it had taken to perform its voyage."

By PERMISSION of the LORD CHAMBERLAIN. For the BENEFIT of Mr. DELPINI. AT the Theatre-Royal, in the Hay-market, TO-MORROW, April 30, 1784, Will be presented a Comedy, in Three Acts, called The SPANISH FRYAR. Dominick, Mr. LLOYD. Lorenzo, Mr. Hemlen; Gomez, Mr. Swords, Alphonso, Mr. Knights; Pedro, Mr. Hunter; And Elvira by a YOUNG LADY, (Being her first Appearance on any Stage.) End of Act I. a New Pantomimical, Operatical, Farcical, Interlude, called The PEASANT METAMORPHOSSED; Or, Mr. DELPINI's VOYAGE from DUBLIN in an AIR BALLOON. In which Mr. Delpini will introduce a Specimen of Singing in French, Italian, and English, which will conclude with a New Hornpipe, by celebrated Mr. Blake, by permission of the Managers of the Opera House, (being his 1st appearance on that Stage.) End of Act II. a Comic Pantomime Dance, called The COUNTRY SQUABBLE. By Mr. Delpini, Mrs. Dagville, Miss Parish and Miss Duff. End of Acts II. and III. Singing by a YOUNG GENTLE-WOMAN, who never appeared on any Stage. After the Play, a new Pantomimical Interlude, called The RIVAL CLOWNS. By Messrs. Delpini, Blake, &c. To conclude with an Alleanance, in a new Comic Style. The Band from the Opera House. Tickets to be had at Messrs. Longman and Broderip's Music Shop, No. 25, Cheapside, No. 13, Hay-market; and of Mr. Rice, at the Theatre, where Places for the Boxes may be taken.

On Saturday last at three o'clock was launched at Grosvenor-square, an Aerostatic Globe of a beautiful appearance, which, from the clearness of the atmosphere, afforded a general satisfaction to vast numbers of genteel spectators, who attended on the occasion. It took its course southward, with a brisk wind, and was observed by the naked eye for ten minutes. It was done at the sole expense of — Willis, Esq. for the amusement of his family and friends under the inspection of Keegan of the Strand. 1 May 1784

RANELAGH. THE disappointed Nobility, Gentry, and Public, at Ranelagh, on Saturday, are hereby informed, as well as to do justice to the Managers, to whom they acknowledge the favor of the use of the Gardens and Rotunda, that the Proprietor of the Pyramintical Air Balloon is exceedingly hurt, that the Exhibition should fail, owing, as he supposes, to the violence of the wind beating the Balloon against the Rotunda, where a sharp ledge of lead ran across; but is somewhat relieved on reflecting that the whole of the money was returned. 1 May 1784

EXHIBITION, for filling and raising a GRAND AIR BALLOON, being 60 feet high, and 115 in Circumference. This and every Evening, (if the Weather permits) at Six o'clock precisely, at No. 13, near BUCKINGHAM-GATE, PIMLICO. THIS Machine, constructed upon a Plan entirely new, in which above 800 yards of strong cloth have been employed, and weighs 1600 pounds, is the largest and most curious in its kind that hath hitherto been executed in this Kingdom. It represents a CHINESE TEMPLE, superbly decorated with Columns, a Gallery, &c. and appears in the operation of filling it, as rising instantaneously out of its ruins, and floating in the body of a thick cloud. Admittance in the Apartments, 2s. 6d. each person; and 1s. 6d. in the Garden. May 4. 1784

Take care of your pockets.—The people of this country are now, since the fine weather commenced, so completely air-balloon mad, that nothing is to be seen or heard in the streets, about dusk, but *See the air balloon!* And indeed the exhibition is abundantly common, as five or six may often be seen dancing above our heads at one instant, like so many *Will o' the wisp*s transported from a terrestrial to an aerial station. The well known *Sight of Hand Club*, who live by an attention to the signs of the zimes, take every possible advantage of this temporary delirium; and while the eyes of the multitude are soaring among the clouds, their fingers are diving with great dexterity to the bottom of every pocket within their reach. In order to improve this new mode of swindling, balloons are purchased on purpose, in order to decoy the mob, and produce such a glorious confusion and uproar, as may give an opportunity for an expeditious and secure exertion of such talents as are competent to the scene. 1784

On Thursday afternoon last, at 20 minutes past four o'clock, an aërostatic globe, filled with inflammable air, of the diameter of three feet six inches, was let go from the garden of Sir Ashton Lever, in Leicester-square; and on the same afternoon the said globe was seen by two boys in a field in the parish of Brentwood, in Essex, and descended to the earth exactly at a quarter before five o'clock; so that upon a moderate computation it travelled the distance of 23 miles direct in 25 minutes.

The boys followed the globe for near half a mile, it being within six feet of the ground for that distance, before it quite descended. Mar. 4. 1784

Extract of a Letter from Milan, March 23. 1784

"An Aërostatic Balloon has been launched in this City, 66 Feet broad, and 72 Feet high, prepared by M. Paul Andreani, a young Gentleman of 20 Years of Age, who, with two of his Friends, was elevated in this Globe. It is computed that they mounted to the Height of 4000 Feet. Having traversed the Air for Half an Hour, they descended on the same Spot from whence they started. This is the first Experiment of the Kind made in Italy."

FOREIGN INTELLIGENCE.

Milan, March 23. 1784

THE Discovery of Aerial Navigation, lately so eagerly sought after by all the European Nations, begins now to meet with some Obstacles; several Publications have already appeared, in which it is attempted to be proved, that it is both for the Advantage of the Sovereign and the People that the Use of them should be proscribed. In Austrian Lombardy, a Decree has been issued against these aërostatic Machines, in the following Terms:

"Government having received Information, that several aërostatic Balloons, filled with Air rarified by Fire, have fallen near our Powder-mills and Magazines, where being consumed by the Flames which have issued from them, there was great Probability of their doing considerable Mischief; to obviate, therefore, in future, the Accidents which might otherwise be occasioned by those Machines, which only serve for Amusement, and which being carried through the Air without any Direction, must inevitably be productive of the most fatal Effects, should they happen to fall on any Buildings, Magazines of Hay, or any other Place wherein combustible Matters are contained, his Royal Highness has thought proper to forbid, under arbitrary Penalties, the launching of any Air Balloon, either in this City, or in the whole Extent of Austrian Lombardy. His Royal Highness however, reserves to himself the Privilege of granting, from Time to Time, Permissions for this Purpose to intelligent Persons, who shall however, be obliged to use every Precaution which the public Safety requires. The Magistrates of this City, that of Mantua, &c. are required to give Information of any who may have the Audacity to act in Opposition to this Decree."

Milan, March 17, 1784.

AIR BALLOON. 1784

AN Aëro-electrical Apparatus has been contrived, and is now sold, at a very low Price by Mr. Hurter, No. 53, Great Marlborough Street. It contains a small Air Balloon, and the Apparatus necessary to produce the inflammable Air and to fill the Balloon therewith: And likewise an Electrophorus, useful for several other Experiments with inflammable Air, and also in Electricity; the said Apparatus containing some other Instruments besides those already mentioned.

N. B. This Balloon may be filled in a few Minutes Time; and, if taken proper Care of, will serve a great many Times over.

Persons purchasing the above mentioned Apparatus will be furnished with printed Directions, and if required the practical Use of it will be actually shewn to them.

AIR BALLOONS. 1784

AN Apparatus is contrived, and now made by Mr. HURTER, No. 53, Great Marlborough-Street, containing a small Air Balloon, and the Apparatus necessary to produce the inflammable Air, and to fill the Balloon therewith: And likewise an Electrophorus, necessary not only to make other Experiments with inflammable Air, but also in Electricity.

N. B. Persons purchasing the above Apparatus, will be instructed in the Manner of using it. Printed Directions are also given with every Apparatus.

Extract of a Letter from Madrid, June 10. 1784

"A few days since a Frenchman went up a considerable distance in an air balloon; but his weight being insufficient to keep it in a perpendicular position, it turned topsy turvy, and the fire being misplaced, caught hold of a part of the machine, which immediately descended; and when it came within seven or eight yards of the ground, the Frenchman was so frightened that he threw himself from the gallery, and by the fall broke his leg; he was otherwise so much bruised that it is supposed he cannot recover. In consequence of this accident the King has declared his intention to put an entire stop to these experiments in future."

Extract of a Letter from Choczim, June 21. 1784

"His Highness the Prince of Nassau Siegen, in his way through this city to Constantinople, was received by the Pacha with great marks of distinction. Having been invited to dinner by the Governor, his Highness presented them, after dinner, with a spectacle hitherto unknown in these Countries, by sending up a balloon of thirty-two feet diameter, constructed according to Montgolfier's method. This aerial globe, which was made up in haste by the Comte de la Porte, one of the navigators in the famous balloon of Lyons, and who is one of the Prince's companions on his tour, was very successful. It rose to the height of 700 Toises, and astonished the Pacha to a great degree of transport, as well as all the Turks present, notwithstanding their general insensibility to novelties. Besides the grandeur of the ascending globe, there happened a circumstance which added to the satisfaction. The balloon took fire, and gave an appearance of a globe burning in the air. It descended by chance, and was entirely consumed near the Pacha's windows, who took this for a mark of the Prince's politeness to him, and returned him thanks in the most grateful and affectionate manner. The good Mussulman could not contain his enthusiastic joy, little dreaming that the burning balloon might have set fire to the city. The company on this occasion was numerous and brilliant. Among the Polish ladies whom curiosity brought thither, Mademoiselle de Witte, who is celebrated at Paris and Versailles for her wit and beauty, was present." July 10. 1784

July 10th On the 17th instant, at Philadelphia, the large air balloon, lately brought there by Mr. Carnes, was let off from the New Workhouse-yard. About six o'clock it rose from the ground, and ascended very majestically, amidst the approving acclamations of thousands of admiring spectators (the wind carrying it slowly to the Southward), until it got to so great a height as to appear to some no larger than a barrel, to others much smaller, and seemed then stationary, though rather inclining upward, when unfortunately it caught fire, and in a few moments was reduced to atoms. At the moment of its catching fire, the feelings of a number of people at a distance were much hurt, on the supposition of a person having gone up in the balloon; and their apprehensions were increased by the falling of the furnace, which, to those not near, presented to their imaginations the horrid spectacle of a man falling from an immense height. Happily, however, the apparatus which held the person broke near the ground, and he only sustained a fall of about ten feet.

Notwithstanding this accident the spirited Citizens of Philadelphia mean to evince their ardour in pursuit of philosophical knowledge, by erecting one much larger, and on a much better plan.

Extract of a Letter from Abingdon, Berks, dated July 21. 1784

"On Monday last the Count Van Dolken made some grand aerial experiments near this town: he ascended in a machine annexed to a balloon of his own construction, being thirty feet diameter; he was plainly perceived by the naked eye for near twenty minutes, and then totally disappeared. It was exactly half past twelve at noon when the Count ascended; at half past three in the afternoon, by means of letting out some of the inflammatory air with which the balloon was filled, he descended at a place called Old Down, in Somersetshire, being upwards of sixty miles distance from this place.

"The concourse of people assembled on this occasion was amazing, and Abingdon might very justly be compared to Stratford at the time of the Jubilee."

To the Nobility, Gentry, and Public in General.

A Large and Curious BALLOON, is now constructing at the Lyceum, near Exeter Change, in the Strand, on a Plan entirely novel, and which has originated in this Metropolis, from the ingenuity of a Gentleman, who is to ascend with it. The construction is now begun at the above place, and when the globe (the materials of which are oil silk, of two colours) is completed, it will be filled with inflammable air, and launched from Chelsea Hospital Garden, having got permission for that purpose. The object of the Gentleman's aerial tour, is to make some interesting experiments, by which it is presumed this nation will discover its great utility.

N. B. The Gallery and Wings are almost finished. Subscriptions are received at the Office adjoining the Lyceum, where Tickets may be had.

One Guinea Ticket will admit a person four different times to see the construction, and likewise into the garden, entitled to have a chair near the globe to see it launched off.

A Half Guinea Ticket will admit a person to see the construction once, and likewise into the garden, entitled to have a proper bench to sit down on, next to the above subscribers.

Five Shillings Ticket will admit a person once to see the construction, and likewise into the garden, entitled to have a proper bench to sit down on. July 1784.

Extract of a letter from Philadelphia, dated July 21. 1784

"On Saturday evening last I was highly entertained by an exhibition of an aërostatic balloon within the limits of this city. Peter Carnes, Esq. a Gentleman of the Law, from the State of Maryland, began at five o'clock to inflate an ellipsis made of silk, whose perpendicular diameter was 36 feet, and its horizontal diameter nearly 34 feet; at the bottom, or rather the point, of this ellipsis were fastened a furnace, a brasier, and a tube, which weighed 150l. To this brasier was suspended by chains a triangle, on which a person was placed, who weighed 134lb. who was to ascend with this curious machine into the upper regions of air. At seven o'clock, a quantity of fire and hickory wood being put in the tube, this grand machine ascended with the bold passenger to the height of about twenty feet, when the balloon being urged by a gust of wind in passing the walls of the yard in which it was inflated, the point of the triangle fastened under the eaves of the walls, the force of the ascending machine broke the chain, and the soaring voyager fell without much injury; the balloon then rushed into the air with astonishing velocity; in a few minutes it was from two to three miles high, where it entered a contrary stream of air, and either from some vibrations in the upper eddies, or from the shock at the wall, some papers say, fell between the brasier, which communicated the fire to the silk, to the great mortification of the spectators: The iron in a few minutes was separated from the silk, and descended from two to five minutes before it reached the earth—the shell of the balloon still remaining in floating flames, and did not reach the ground till entirely consumed.

"This enterprising philosopher deserves the smiles of his countrymen, and more especially as this machine was made at his own private expence—nor is the burning of a balloon any more an argument against the using them, than the burning of houses is against their use. This balloon ascended with 450lb. weight, and in all probability would have mounted with much more. What garrison can remain unconsumed? What region unexplored? &c. &c. To what amazing perfection these globes may be brought futurity alone can unfold."

Extract of a letter from Philadelphia, July 27. 1784

"Last Saturday evening, about six o'clock, the greater part of this city was drawn out into the Common, to see the ingenious Mr. Carnes's machine ascend; my curiosity also, joined to a wish to encourage so bold (and without doubt so useful) an enterprize, led me into the yard, where it was inflated, merely by the rarefaction the air underwent, by a fire made in the furnace below with hickory wood, which ascended the tube, and filled the cavity of the balloon.

"This balloon, which was nearly 35 feet diameter, made with silk, and lined with paper, together with an iron furnace, &c. at bottom, weighed 300 wt. this, with a man who weighed 130 wt. ascended to the height of about 20 feet, when a flaw of wind waisted the man, who was suspended at the bottom, against a wall, and the triangle on which he sat fastened under the eaves of the wall, the violent ascent of the machine broke the chains, and threw down the passenger, and having lost so much of its weight or ballast, the celerity of its ascent was such, that in four or five minutes it gained a height of between one and a half to three miles; after a short time it took fire in the air, and the furnace, iron work, &c. fell to the ground, without doing any damage.

"It afforded great diversion to several thousand spectators. Mr. Carnes's machine, as the property of an individual, has been expensive, the enterprize noble, great, and laudable."

Yesterday the Sieur Stuver repeated at the Prater, in presence of a numerous assembly, the experiment of his grand aërostat, weighing 4600 Vienna pounds, including the four persons who were in it. This aërostat rose to a considerable height, and after passing over part of the Prater, fell on the opposite shore of an arm of the Danube, where the Tabor begins, without receiving the least damage. The experiment was followed by an exhibition of fireworks by M. Stuver's son, the design and execution of which were greatly applauded.

Vienna Aug: 28. 1784

"The reason of Monsieur Vivenair's having gone so much higher in the air than Messrs. Charles, Montgolfier, and other aerial navigators, was owing (as we find by his pamphlet, and the plate annexed) to his taking up with him a quantity of Dr. Priestley's improved Vital Air, which he made use of when the atmos-

Extract of a private letter, dated Paris, Sept. 23.

"I don't know what you may think of our attempts to cut our way through the air; you will say, perhaps, that a Frenchman can go through any thing; but be as satirical as you please; certain it is, that all our good Parisians are petrified with wonder, and listen in the corner of every street, "with open mouth to the man of news," I mean such as concern the air-outstripping globe. There are, however, some impious wretches who dare to scoff at and deride the wonderful Messrs. de Montgolfier, and the great and more surprising consequences that are expected to derive from their curious invention. Among the satirical pieces published on that subject, the following letter, inserted in one of our news-papers, is not the most contemptible; it seems to be built on the Horatian maxim, *Ridiculum aeri*, &c.

To the Gentlemen of the Aerial Navy.

Gentlemen,

"I am as desirous as any of you to tread on the air, and I think it my duty to submit to your wisdom the thought which struck me on the flying up of the first areostatic globe. As an amateur I with gracefulness should unite to the ease and safety of the traveller. This consideration persuades me, that the most eligible form would be that of a Pegasus, of a size far exceeding nature. Its body will serve as a recipient for the inflammable air; the head, with mane flowing forwards, would then serve as a stern; by means of wings the degree of elevation might be determined as well as its velocity, whilst the tail would be employed as a kind of rudder, and the four feet placed in the attitude of a galloping horse, and poised by a weight fixed at the extremities of the hoof, and proportioned to the rest of the machine, might be considered as a kind of ballast which would keep the rider in a steady posture. The whole should be covered over with a light coat of whalebone, wrapped up within a light lute-string, prepared with elastic gum. This being constructed, it will be an easy matter to fix a spring, which would serve by the direction of the rider, such as the pressure of the knees against the horse to let out such portion of the inflammable air as would temperate the swiftness of the horse, in case he should make a bold and adventurous attempt to scale the firmament. I am, &c."

On Fire Balloons.—In Petits de la Croix's Reception of the French Ambassador by the King of Siam.

The fire-works that were played at night were perfectly fine. There were rockets as big as one of our hogheads, and of a proportionable length. They mounted about the middle region of the air, and cast so great a blaze, that they lighted the country six leagues round, as if the sun had been shining at noon-day. The inventor of this fire-work sitting himself down on the end of one of these rockets, ordered it to be fired, and was whisked up into the air higher than any four steeples in the world could reach were they set one upon another. The rocket having spent its strength, and being ready to fall down, all luminous with the infinite number of stars that broke from it every moment, the engineer opened a sort of umbrella he had carried with him, which, when it was extended, was little less than thirty feet in diameter. This umbrella was made of feathers, and so very light, that the air supported it without any trouble; no otherwise than we see in France those machines of papers that are called kites, which being fastened to a long string of packthread, the children make them fly in the air. In so much that the engineer supported by this great umbrella, came to the ground, surrounded with stars, as gently as if he had had wings, and could have flown with them.

GRAND ENGLISH BALLOON.

To the Nobility, Gentry, and Public in general,
A LARGE and curious BALLOON is now constructing at the Lyceum near Exeter-Change, Strand, on a plan entirely novel, and which has originated in this Metropolis, from the ingenuity of a Gentleman, who is to ascend with it.

The construction is partly finished at the above place, and when the Globe (the materials of which are oiled Silk of different colours) is completed, it will be filled with inflammable Air, and launched from Chelsea Hospital Gardens, having obtained permission for that purpose.

The object of the Gentleman's aerial Tour is to make some interesting experiments, by which it is presumed this nation will discover its real utility.

The Gallery, Oars, and Wings are now completed. Subscriptions are received at the Office adjoining to the Lyceum, where Tickets may be had.

One Guinea Ticket will admit a person four different times, to see the construction, and likewise into the Garden, intitled to have a Chair near the Globe to see it launched off.

A Half Guinea Ticket will admit a person to see the construction twice, and likewise into the garden, intitled to have a proper bench to sit down on, next to the above Subscribers.

Five Shillings Tickets will admit a person once to see the construction, and likewise into the garden to have a proper bench to sit down on.

The above Room is now open from ten o'clock till eight o'clock, for the admission of Subscribers, where the Construction, Gallery, Oars, and Wings, together with other BALLOONS may be seen.

Admittance for Non-subscribers Two Shilling and Sixpence each.

July 21 - 1784

A grand air balloon has just been completed at the chateau of the Duc de Orleans; it is 160 feet in diameter, and constructed with wings and sails, by which the direction of it is to be regulated. Strange as the undertaking may appear, a party of gentlemen have it in contemplation to cross the sea in it, near Brighthelmston!
July 23 - 1784

An air-balloon, which was sent up from the bowling-green in this city on Friday last, was found the next morning at Didley. As its descent was not observed, in what number of minutes it went about seven miles, is not known.
Hampstead Aug. 26. 1784

AIR BALLOONS, on a new Construction, Three Shillings and Two and Sixpence each.

THESE Balloons have been very much admired for their Simplicity and easy Method of filling with rarefied Air only, without any ill Smell. These Balloons are made on such a Construction as to be equally visible either by Day or Night, but more particularly at Night, when they exhibit a most beautiful Appearance in the Atmosphere. They have been known to travel Eight Miles from the Place where they were let off in the Space of Ten Minutes. They also may be used in any Room in a House, without Danger or any ill Smell. The Size of a Balloon, of the small Value of Three Shillings, is Nine Feet in Circumference. They will afford the Spectators as much real Pleasure and Diversion as one of an Hundred Feet in Circumference. They are made very light and portable, and may be carried in a Sheet of Paper. They also may be made to any Size larger.

Made and Sold by

ARNOLD FINCHETT.

At his Tin-Ware Manufactory, (No. 188) between Chancery-Lane and St. Dunstan's Church, Fleet-Street.

Proper Directions are given with each Balloon, how to fill and use them. Good Allowance to Country Traders, or for Exportation.

N. B. Beware of Counterfeits, as there are a Sort selling about Town, which do not answer the Purpose.

* No Letters will be answered; but a 6d. Post-paid.

Extract of a Letter from Exeter, Sept. 3. 1784
"On Monday evening was exhibited here, at nine o'clock, a fine balloon fancifully painted, of 22 feet in circumference; it rose to a considerable height, and continued in flight for twenty minutes; it was then eclipsed behind the clouds, having taken its course over the parks of Duplin; was afterwards seen passing over the village of Methven, five miles from this; the wind, taking a contrary course, drove it back to Black Ruthven, where it alighted, to the no small amazement of the inhabitants."

Sept. 7. 1784

On Tuesday evening a very serious accident took place at the Rev. Henry Bate's, in Essex: That gentleman had procured an air balloon for the entertainment of the country people, and gave orders that a cannon should be fired for the purpose of giving notice. In preparing the charge for the cannon, a spark from a match fell upon two pounds weight of gunpowder, which blew up, and burned the face of the coachman and a boy in a most miserable manner.

for 1784. Sept. 9—11.

Yesterday a complaint was laid before the Lord Mayor, relative to the danger that may ensue from the Air-balloons which are every night sent up in different parts of this City, and his Lordship promised that he would lay the matter before the Court of Common Council next Tuesday, for that Court to consider of the proper steps to be taken in order to put a total stop to them.

Extract of a Letter from Deal, Sept. 6. 1784

"Put back the Generous Friends, Hall, for Boston, and remain with the Scout sloop, the Diligence, Piper; Priscilla, Wilson, for Dublin; and Ann, Barnard, for Oporto. Wind at South."

On Friday last three air balloons were sent up in different parts of this metropolis, when one of them fell in a barn near Camberwell-grove, full of corn, and with the greatest difficulty the barn as well as corn was preserved from being destroyed.

Last night at nine o'clock, the extensive premises of Messrs. Browning and Eykyn, Smithfield-bars, were near being burnt down by an air balloon, which took fire and fell in their yard, but being immediately discovered, was put out without any material injury.

It is pity that an ingenious invention should be turned to the detriment of the publick, as is at present the case with those small balloons, purchased for three or four shillings, which are every night seen floating in the air, with lights burning in them. Three fires have already happened in consequence of these dangerous machines. Even porter-houses now collect company by giving notice of their intention to launch a balloon at a certain hour, by which several of them are said to have made it well answer their purpose, so ballooning mad are the people in this metropolis!

Last Tuesday night, between eight and nine o'clock, a gentleman, walking from Whitechapel church to the Change, counted no less than seven balloons, with lights in them, floating in the air, one of which fell in Whitechapel.
Sept. 16. 1784

AIR BALLOON.

The Public are requested to take notice, that a clear and entertaining description of that wonderful invention, is given at large in

BRESLAW'S LAST LEGACY; or, The Magical Companion: (published this day, price only 1s. 6d.) Containing all that is curious, pleasing, entertaining, and comical, selected from the most celebrated masters of deception; as well with flight of hand as with mathematical inventions; including all the various exhibitions of those wonderful artifts, Breslaw, Sieur Comus, Jonas, &c. The interpretation of dreams, signification of moles, &c. with a selection of all the favourite new songs sung this season at Vauxhall, &c. riddles, and bon mots: the whole forming a book of real knowledge in the art of conjuration. In which is displayed the way to make the Air Balloon and Inflammable Air.

Printed for T. Moore, No. 33, Paternoster-row; and may be had of all other Bookfellers in town and country.

In this ingenious performance is more particularly described than in any other publication of a similar nature, how to make the Air Balloon, so that the curious may amuse themselves and friends by displaying them either in public or private.

Air Balloon, or
The Magical Companion.



Breslaw's Last Legacy.

A gentleman in the box lobby on Saturday night, after the performance of the new farce, called Aerostation, expressed his astonishment that the minister should suffer the prologue (which contains several severe strokes on the late taxes) to be spoken! "For, continues he, that distinguished politician has already deprived us of the sense of seeing, and by a parity of conduct I think he may take from us another sense, hearing; and, perhaps, will at length leave the people of England nothing but feeling, to remember him."
Nov. 1. 1784

Yesterday morning, about one o'clock, a fire broke out at a Chandler's shop in a Court near Wapping Church, which consumed the said house, with the furniture and stock in trade. The mistress of the house and three children are missing; and it is feared they perished in the flames; and four greatly damaged. It was said to have been occasioned by the carelessness of a fellow, who has for some time fabricated the cheap balloons advertised for sale.
Nov. 22. 1784

Thursday Mr. Blanchard's balloon, with all the apparatus for filling it, was sent to Dover Castle, whither he goes himself in a day or two, to wait a favourable wind to wait him to his native shore.
Dec. 18. 1784

During the air balloon rage, which continued to operate in various splendid extravagancies in Paris for some time, its most diverting effects were after exhibited among select parties of pleasure. An ingenious gentleman contrived to have a flock of large swans basking on the bank of a rivulet which ran through his gardens, who on the approach of a company invited to walk in them for the evening, instantly ascended, and an elegant pleasure barge followed them at a distance. But the most remarkable instance was the situation of an Englishman, who having been out a hunting, and coming into a friend's house exceedingly hungry, was presented with a plate full of boiled eggs, which he had himself ordered; but the moment the napkin was lifted up, they bounced against the ceiling of the room, and left him to gaze and gape at the accident with an empty stomach.
Dec. 1784

General V— has agreed to pay three hundred pounds to the proprietor of the balloon, with whom he has engaged to make an ascent, for the expence of filling it, &c. which agreement is to hold good whether the general continues inclined to make his aerial excursion or no.

It is said that the above Gentleman has been induced to take this enterprising flight, by a great personage having expressed a wish to know from some person, on whom he could depend, whether it was probable balloons would ever be sufficiently under the power of guidance to be rendered of any utility, or whether they ought to be considered, merely as adventurous projects, without the prospect of being of the least advantage whatever.
Dec. 1784

The Parisians are now changing the form of their aerostatic machines from perpendicular to horizontal shapes. They find that the immense globe obstructs their navigation in the atmosphere, and a Chevalier de la Morle has contrived one which presents a much smaller surface to the wind, and which promises therefore to be more under controul.
1784

The Duke of Bedford has declared, that he will be at the expence of a balloon, for any philosopher that will rise in it; and if he goes as high as Monsieur Charles, will reward him handsomely besides.
1784

BALLOON INTELLIGENCE EXTRAORDINARY.

At a place of worship, in the vicinity of Lambeth, on Sunday last, a virgin, whose frontispiece indicated a revolution of fifty years, in conformity with modern adornment, was decorated à la Balloon. The preacher reading that part of the Liturgy which expresses "From all false doctrine," &c. the garbed piece of antiquity, reclining her head, uttered, "Good Lord, deliver us!" when, on a sudden, off went the Balloon, together with the hairy gallery; and its contents; the congregation was somewhat disconcerted, until the Balloon, with its appendages, became reinstated on the infertile locality!
1784

Thompson, the poet, once said, that he did not despair to live to see the time, when a man would call for his wings, as he calls for his boots or horse. But he lived not to come so near this phenomenon as we have done. The general conversation turns so much on the ambition of ballooning it, that, but for the expence, there hardly would be an earthily-minded man in London. But we may, with some little alteration, apply the advice of the greatest of men, "Let him that flyeth, take heed lest he fall."
1784

M. Thibault, a Professor in the University of Louvain, has discovered a method of producing inflammable air from pit-coal; a circumstance which may be of great advantage to this country. He found from various experiments, that fifteen ounces of powdered pit-coal yielded, in about three quarters of an hour, no fewer than one hundred quarts of air, of so pure a quality, that on trial it was proved to raise a balloon as rapidly, and as high, as if it had been filled with the usual inflammable air. The operation is soon to be repeated on a larger scale, and iron retorts of a great dimension are now making at Louvain by order of the Emperor, for the above purpose.
1784

A letter from Paris gives an instance of the danger there is in sending up lighted balloons. One of this description fell some days ago on a building of the fair St. Laurent, to this country. He found from various experiments, that fifteen ounces of powdered pit-coal yielded, in about three quarters of an hour, no fewer than one hundred quarts of air, of so pure a quality, that on trial it was proved to raise a balloon as rapidly, and as high, as if it had been filled with the usual inflammable air. The operation is soon to be repeated on a larger scale, and iron retorts of a great dimension are now making at Louvain by order of the Emperor, for the above purpose.
1784

1784 AIR BALLOONS.

"Only the other night," writes Horace Walpole, "I diverted myself with a sort of meditation on future Airgation, supposing that it will not only be perfected, but will depose navigation. I did not finish it, because I am not skilled like the gentleman who used to write political ship news, in that style in which I wanted to perfect my essay; but, in the prelude, I observed how ignorant the ancients were in supposing that Icarus melted the wax of his wings by his too near access to the sun, whereas he would have been frozen to death before he made the first post on the road. Next, I discovered an alliance between Bishop Wilkins's Art of Flying, and his art of Universal Language, the latter of which he no doubt calculated, to prevent the want of an interpreter when he should arrive at the moon."

"But I chiefly amused myself with ideas of the change that would be made in the world by the substitution of balloons for ships. I supposed our seaports to become deserted villages, and Salisbury Plain, Newmarket Heath (another canvas for the alteration of ideas), and all downs (but the Downs), arising into duck-yards for aerial vessels. Such a field would be ample in furnishing new speculations—bet to come to my ship news."

"The good balloon Dædalus, Capt. Wingate, will fly in a few days for China; he will stop at the top of the Monument to take in passengers."

"Arrived, on Brand Sands, the Vulture, Capt. Nabob; the Tortoise, Snow, from Landau; the Pot-en-l'Air, from Versailles; the Dreadnought from Mount Etna, Sir W. Hamilton, commander; the Tympany, Mongolfier, from the Cape of Good Hope. Pounded in a hurricane, the Bird of Paradise, from Mount Ararat. The Bubble, Sheldon, took fire and was burnt to her gallery; and the Phoenix is to be cut down to a second rate."

"In those days Old Sarum will again be a town, and have houses in it. There will be fights in the air with windiguns, and bows and arrows; and there will be a prodigious increase of land for tillage, especially in France, by breaking up all public roads as useless."

The rewards which the King of France has given to all the inventors and improvers of the air balloon, shews what a disposition there is in that Court to encourage and bring merit forward. We have naturalists, philosophers, and experimentalists in England, who by the assiduous labor and undeviating attention of a life united with the genius and penetration that make real discoveries, yet who never received the least reward, notice, or encouragement from those who distribute, or rather who divide the public money.

There is hardly a country town in England at present that has not had its air balloons let off, by which exhibitions as much money will be uselessly spent as would try a thousand important experiments.
1784

There is actually at this time in London a gentleman from Lancashire of very great knowledge in nature, who has spent a considerable part of his life in making experiments on air, &c. &c. and has brought up an application of the air balloon to a purpose truly national, yet of such a nature, that it may be kept a profound secret from other nations. He has waited some time to be admitted to ministers, in order to explain his project, without being able to get a moment with them, so fully are they employed in the arduous work of preserving their own places, and neglecting all kinds of public business.
1784

Extract of a Letter from Beccles, in Suffolk, dated
October 7. 1785.

"Our expectations have been amply gratified by the ascension of the balloon constructed by the Rev. Peter Routh, of this place, on Tuesday last, at three o'clock in the afternoon. Every thing necessary being prepared for filling this amazing sphere, whose diameter was 36 feet;—the most scientific Gentlemen of this town and neighbourhood, such as Mr. Peter Routh, Mr. James Algar, Mr. P. Blowers, the Rev. Mr. Holden, &c. attended the filling it. A process that required so much skill and attention was assigned principally to M. Holden, Mr. Algar, and Dr. Carter, and in about three hours the balloon was perfectly inflated. A gallery, constructed by Mr. Peter King, was attached to it, lined with crimson satin, and ornamented with gold fringe; in which it was proposed that Mr. Routh, Miss Fanny Shouldham, and Mr. Robert Davy, should ascend; but after liberating the machine, it preserved for some time an exact equilibrium, and to effect its ascension it was judged expedient to lessen the weight contained in the gallery, by Miss Shouldham getting out, and Mrs. Hines, who was desirous to accompany the Gentlemen, and less corpulent, taking her place, the balloon instantly rose, though gradually, exhibiting to the beholders assembled in the adjacent fields, a magnificent spectacle; for I should have informed you that a large field was the spot made choice of to make the experiment; and Mr. Holden, with his accustomed liberality, promised the farmers in his parish, a remission of half a year's tithes, in consideration of the damage which they might sustain, by so great a concourse of people on their lands.

At an elevation of about two hundred yards, Mrs. Hines gracefully bowed to the spectators, waving her handkerchief, as did the gentlemen; and the balloon took a direction towards the sea, still rising in its progress. Whether the valve was unfortunately obstructed, or want of management was the cause, the people of Yarmouth observed the balloon approaching the ocean very rapidly at an immense height, and with a wind too high to render any assistance from boats possible; and at the approach of evening it was wholly lost to their view. Every one lamented the probable fate of the adventurous aeronauts, and the next day there appeared stamped upon every countenance an anxiety to learn some favourable account of them; but it was not till the following day that news arrived of a Dutch vessel, commanded by Captain Andrew Van-Swieten, having luckily taken them up at sea, near the coast of Holland, the car gliding on the surface of the water, and the balloon, like a guardian angel, wafting them in security. Mr. Davy fortunately spoke a little Dutch, and through the assistance of a passenger on board from Amsterdam, who was a little acquainted with the English, was enabled by a kind of mixed language to relate the particulars of their expedition. The lady, who you know is noted for the excellence of her spirits, supported by her example her fellow-voyagers to the last.

"They were conducted this day to Beccles, amidst the acclamations of some thousands of spectators, and each wore a laurel crown, inscribed in the front on a gilt label, *"The favoured of Heaven."*

"An elegant marble slab, with an inscription written by the Rev. Mr. Amos, will be placed in the choir of the Church here, to perpetuate this singular act of courage, and instance of divine protection.

"When at the utmost altitude, Mr. Routh penned the following lines, with as great facility, he declared, as he ever wrote.

WHEN floating in the vast expanse,
We own'd thy gracious care;
For 'twas alone thy Providence,
That chas'd away our fear!
Supported by thy mighty arms,
When dangers threaten'd round;
Compos'd we safely secure from harm,
And perf'd our safety found!"

All degrees and professions have now been riding balloons. A son of the church, the Rev. Peter Routh closes the list. He took a female too with him, providential to be sure; but it does not appear that he approached Heaven with greater facility than other balloonists.

Master Peter Routh got dabbling at Poetry when aloft. His verses are rather of the Sternhold and Hopkins cast to be sure. Master Peter and his friends are, however of opinion, that they may be sung to the music of the Spheres.

Bury, October 19. Saturday being the day appointed for the ascension of Mr. Poole's Balloon from this place, the largest concourse of people assembled ever known upon any occasion.

About twelve o'clock a great number of persons of fashion occupied the ground, who expressed the highest satisfaction at the process of filling the balloon, which was conducted under the immediate inspection of Mr. Blake, who ascended with Major Money and Mr. Lockwood from Tottenham-court-road, and our intrepid aeronaut, who during the whole time shewed a degree of coolness scarcely to be paralleled. The balloon being sufficiently inflated, (which circumstance was ascertained by weights affixed to the bottom) the car was suspended, and Mr. Poole got in, quite collected and composed. It was now found necessary to cut away the wings, intended to act as sails, which had been constructed by an ingenious Piedmontese, patronised by Lord Orford, and which, it was supposed, would have contributed to facilitate the direction of the balloon, but were found greatly to retard the celerity of its motion.

This circumstance being effected, about two o'clock, Mr. Poole ascended with great rapidity, amidst the acclamations of thousands, whose raptures on the occasion were indescribable, and which were returned in the most polite manner by the aerial voyager, who for a long time saluted them by taking off his hat, and waving his flag.

The following particulars are given by Mr. Poole himself:

"Immediately after my balloon was liberated, I found myself ascending with an East by North course, a serene day, a very beautiful sky, and the sensation of ascent exceedingly pleasing. On entering the first cloud, I found the mercury in the barometer had fallen four inches and a half, which stated my elevation at three quarters of a mile and about 146 yards.

"Although my ascension was rapid, the clouds were of so unequal a height, that I did not pass them in less than four minutes; I then found myself parallel with their tops, which wore a snowy whiteness. I now began to feel cold, although the sun shone with uninterrupted splendour; my balloon was now considerably expanded, and having ascended beyond the reach of sound from below, I was struck with the silence, which prevailed to such a degree, that I heard the watch beating in my pocket.—Notwithstanding the cloud, which was considerable, I continued to mount, until my barometer had fallen 14 inches and a quarter, which I since find, by comparing with my table of altitudes, is three miles and 133 yards. My Balloon was expanded to a degree of tension, and on drawing the appendice to me, I found the gas was issuing very copiously; I had now a confined and unpleasant sensation in my ears.—On considering my elevation, I was astonished to find that looking to the earth was not attended with the smallest disagreeable sensation, although I have always experienced it on looking down a precipice.

"Having been up 50 minutes, and knowing that I had made a considerable progress to the eastward, I was surprized at not being able to discover the sea through the interval of the clouds; I was about to descend below them for information, when I discovered a beautiful meandering river, bearing by my compass South East by East, and by tracing its course, discovered the termination of the land in that quarter. I could now also perceive the ocean in an eastern direction, the point to which I was advancing; it had rather an opaque than a luminous appearance; and judging it not to be very distant, I thought proper to descend; I opened my valve, which acted very well, and by keeping it open some little time, found the surface of the Mercury become convex and light; downy feathers which had hitherto descended, began to take a contrary direction.—My descent was gradual, I soon after alighted in a small piece of ground at Earl Soham, in this county, without injury either to myself or balloon.

"I was very hospitably received by Major Dade, who lives in that neighbourhood, and found my distance from Bury to be 28 miles, having been in the air above one hour and eleven minutes." 1785.

Mr. Poole ascended Wednesday at one o'clock from Cambridge, with a balloon. There were a number of people of the first fashion of that part of the world present. He descended at Denon, about 12 miles from Newmarket, and 24 from Cambridge. 23 Nov. 1785.

By a Gentleman just arrived from Paris, we hear that the rage for ballooning is so various and extensive in that capital, that several showmen have what they call balloon stands round the Boulevards, where, for a livre or two, any body who chuses is let up to a certain height, and pulled down by a string attached to the balloon for that purpose. An accident happened, however, a few days since, which has made people a little more cautious; which was, the string gave way, and the balloon took its flight half over Paris, before gas enough had been expended for it to descend. The person who went up was a young man about 19. He very fortunately came down in a Nobleman's court-yard; and as the servants saw his descent, they had prepared for it by getting together a parcel of beds, straw, &c. by which he escaped unhurt, though almost frightened to death.

Jan. 13. 1785. L.D. J.M.

On Friday evening, about six o'clock, a new Aquatic Balloon was sunk; a little above Westminster-bridge; the inventor was in it. A tube was fixed at the top for air; the Balloon drifted with the tide as far as Lambeth stairs. In the interim, two signals were made; the first denoted that all was well; but the 2d, that he wanted instant assistance; upon which the boatmen who attended, instantly hauled up the balloon, and found the man nearly drowned. It seems, that through some mistake, the water got in: However the inventor purposes making a second experiment. *Apr. 3. 1785*

A letter from Portsmouth bath the following article, dated May 13, "We were last night, about nine o'clock, shocked on an air balloon passing over this town all in flames, for we apprehended by the course it took that it would fall in the dock-yard, which might have been attended with fatal consequences to us all, for had it fell amongst any combustibles it might have done great damage, not only there but perhaps to the town. But the wind blowing brisk it carried it into the middle of the harbour, where it fell, and the water soon extinguished the flames."

IRELAND.

Tralee, June 15. 1785

Yesterday morning some young Gentlemen near this town floated a large balloon, called a Montgolfier, which ascended to a considerable height, but taking fire, it descended on a farm-house at about two miles distance, and a dwelling, stable, with two horses, and haggard, in which was a great quantity of corn, were totally destroyed.

Extract of a Letter from Dublin, June 22.

"The liberating of lamp balloons is become now such a common practice that no less than 20 or 30 are let off almost every night, to the great fear and terror of the inhabitants of this city; a deal-yard in Engine-alley, on Tuesday night, narrowly escaped being consumed by one of them falling among the timber, and would have certainly done it but for the timely assistance of the neighbours.

"As the intulity of fire balloons is now evident, and the extreme danger of liberating them has been manifested by the conflagration at Tullamore, &c. it is praise-worthy in the Lord Mayor to have issued his mandate against them, especially when hay and corn may shortly be exposed to the utmost danger."

Last night was performed at ASTLEY's, a Musical Piece called the Cocker and the Air-Balloon, which was originally written by Mr. A. to shew there was some danger in Aerostatic Experiments; the song by the Cocker, which concludes the piece, produced a good effect.—Mr. Astley's indefatigable industry in bringing forward so great a number of favorite pieces, deserves the highest commendation. *29 June 1785*

A correspondent informs us, that on Saturday night the new uncovered buildings on the Surrey side of Blackfriars bridge, were set on fire by a balloon sent into the atmosphere by the smoke of burning spirits. The immense frame-work of the building designed for the corn-mills, on which thousands of pounds have been already expended, were thus on the point of being consumed by this childish sport. By good fortune timely assistance was procured, and the fire successfully extinguished before it had got head. *Sept. 27. 1785*

Some little time since a mercer and linen draper at Evesham in Worcestershire, who had long time harboured in his breast a passion for soaring aloft, having bought a large parcel of remnants of silk of a brother shop-keeper who had run on the wrong side of the post, formed a resolution of fabricating a balloon therewith, which he speedily effected, and by the help of an ingenious auctioneer of the town, who had the character of being a great adept in the doctrine of inflammable air, soon filled the balloon, and on Tuesday the 4th instant, the mercer and linen-draper made an attempt to ascend, which he did for a few yards, but owing, as it is conjectured, to too great a quantity of inflammable air being introduced into his balloon, a tension ensued, his balloon burst, and the ambitious aeronaut fell with great rapidity against one of the battlements at the gable end of the Corporation-hall, and so much hurt himself, that it is thought he will for ever hereafter relinquish all airy flights, and confine himself to the exercise of his yard at home. Like an industrious linen-draper, an employment more congenial to the sphere of his groveling terrestrial capacity!!! *Oct. 26. 1785*

Mr. Van Dan Bergen, a Major in the Dutch guards, ascended in a balloon, 56 yards by 30, on the 1st inst. at Amsterdam, taking with him a parachute, a dog, a cock, and a pigeon, the former of which was let down, and appeared to descend gradually for some time, but afterwards went off in a horizontal course, and became invisible to the spectators. At two hours and forty-three minutes after his ascension, Mr. Van Bergen became invisible to the anxious spectators, and though the merchants and other persons stretched out to sea, and every other method both by land and water was exerted to get intelligence of his descent, no tidings have as yet been heard of him, and great apprehensions are entertained for the valuable life of this brave and distinguished officer. To add to the melancholy catastrophe of this tragic event, Major Van Bergen was shortly to have been married to Madam Rosella, daughter of the Governor-General of the Spice Isles, who upon hearing the event became distracted, and has since utterly lost the power of speech.

The States have proclaimed a reward of one thousand pounds sterling to whoever shall bring the body or balloon of Major Van Bergen, and prohibited on pain of death any further aerial experiments in Holland. *Dec. 1785*

It is said a certain aerial voyager has proffered Mr. Astley to take his extraordinary monkey with him on his next excursion, and by that means, immortalize him for ever, as he has done his dog and cat, provided he will let the creature perform six nights at the Pantheon, either before or after the journey. Whether this proposition has been accepted, is not known, but if we might judge from our own inclinations, supposing we had such an extraordinary and invaluable creature in our possession, we should imagine Mr. Astley has not been agreeable to risk the life of the family, as many foolish Generals and Admirals have done, merely to gain immortality. What recompence would it be to Mr. Astley that the monkey should be dead and immortal, for the loss he would sustain for his life, and consequently, the performance of feats that fill his Amphitheatre every night with the most crowded audiences? If he be wife, we are assured he has rejected with disdain a proposition that has no possible advantage in prospect to tempt his acceptance. *1785*

Balloons are still seen flying in the air of an evening, notwithstanding the manifest danger attending this very silly and childish amusement. Parents of children ought to discourage them from pursuing it. It is a duty they owe to society. *1785*

"It is an ill wind that blows nobody good," for although the breeze of Tuesday evening would not raise the Ranelagh Balloon, yet it wasted many of the disappointed spectators to Vauxhall, where they drowned their chagrin in the juice of the grape, and the essence of Batavia. *July 21. 86*

To be ballooned is all the ton, especially among the belles of twenty, whose enormous protuberances present to the mind an idea of extreme varification. *Morning Post. Aug. 23. 1786*

A Letter from Newcastle-upon-Lyne, dated Sept. the 19th, confirms the melancholy Account in the Postscript of this Paper last Week, of Mr. Heron being killed by falling from a Balloon; and further says, "Conceive the Astonishment that seized every one present, particularly the Crows which were upon St. John's Church Steeple, St. Nicholas's, and all the high Places in the Neighbourhood, to behold a Person suspended by his Arm at the End of a Rope, ascend so prodigious a Height so quick, and tumble down as quickly! No Person knew at first who it was, but the Alarm soon was given of its being poor Mr. Heron: His Father, Mother, and Sisters, with their Friends, were in a Scaffold just by; the Ground was deserted, and the Cries of the Spectators were distressing. He fell partly erect upon a Tree, from thence in the same Situation upon a Flower-Bed of soft Mould, into which he sunk nearly Knee-deep, and there stuck fast. Every Person went Home sorrowful.

"What has become of Lunardi, I cannot tell you; but I fancy he made as good a Retreat as he possibly could, for Fear of the Fury of the enraged Populace. Whether the Balloon took Fire from Lunardi's Ignorance or Negligence, is best known to himself, but every one before the Balloon burst seemed to think he was very dilatory in performing the Operation; and I need not inform you, that this Misfortune will be a sad Memento to this Town and its Neighbourhood.

"Mr. Heron was between 21 and 22 Years of Age; was not out of his Clerkship with his Father, who is an Attorney, and the Under Sheriff for the County of Northumberland." *1786*

On Thursday last Mr. St. Croix ascended in his balloon from Mr. Hutchins's yard, near St. Martin's church, amidst the acclamations of a prodigious multitude of all ranks assembled on the occasion. The balloon was of silk, large, beautifully transparent, and adorned with a pleasing variety of colours in stripes. Its shape nearly that of a pear, round at the top, and verging to a point at its lower extremity. Over the whole was thrown a strong net, and some cords to which the car was appended. About two o'clock, the weather being remarkably fine, the aeronaut took his station in the car, and after performing two or three manœuvres, consigned himself to the air. The wind blowing lightly from the West, his ascent was magnificently slow, and beautiful beyond description, impressing on every beholder the most awful and lively sensations of grandeur, astonishment, and admiration. Every heart felt, and every tongue spoke in praise of the dauntless adventurer, who courteously waved his flag, and bowing his hat, gallantly bade the wondering spectators adieu! He continued to ascend about three quarters of an hour longer, soon after which he began to descend, and about twenty minutes after three o'clock he alighted in perfect safety about half a mile from Romsey, and the next morning returned to this city. *1786*

A Friar in Oxford Road, has got written in his window, balloon rises—a very necessary recommendation this; for on considering its ascension, it ought to have some innate power to keep itself in a stationary position. *1786*

The excursion of M. Testu, from Paris, in June 1786, is without a parallel, having lasted twelve hours. His balloon was furnished with wings and other apparatus for steering; when he had reached an elevation of three thousand feet, the distension of his balloon gave him serious apprehensions of a rupture; he therefore descended in a corn-field in the plain of Montmorenci. An immense crowd ran eagerly to the spot; and the proprietor of the field, exasperated at the injury his crop had sustained, seized M. Testu, and demanded indemnification; the aéronaut made no resistance, but persuaded the peasant, that having lost his wings, he could not possibly escape. The ropes were seized by a number of persons, who attempted to drag the balloon towards the village; but as, during the procession, it had acquired considerable buoyancy, Testu cut the cords, and left the disappointed peasants overwhelmed with astonishment. The temperature was at the freezing point, and particles of ice floated around him. As night approached, the blast of a horn attracted his attention, and seeing a party of huntsmen, he suffered some gas to escape, and descended. He now resigned his wings as a useless incumbrance, and reascended through a mass of electric matter. Shrouded in darkness, he was wafted about for three hours in the gloomy region of the gathering storm. The surrounding terrors, the lightning's flash and the roaring of thunders, accompanied by copious drifts of sleet and snow, did not damp his courage: a flag ornamented with gold frequently emitted sparks of fire, and was ultimately torn in pieces by the lightning. At length the elemental conflict ceased, and the stars began to appear; between two and three, the ruddy streaks of light in the east announced the approach of day; and after beholding the rising of the sun, he descended uninjured, about 70 miles from Paris.

For the WORLD.

Dec. 187

The following Lines make part of a POEM, written in ARTIGUA, on the first rise of AEROSOSTATION,
By Mr. GILBERT.

"O! COULD I join thee in the fields of air,
And trace the wonders of some other sphere!
Borne by philosophy, and new-taught lore,
In other regions, other realms explore—
Claim int'rest with thee in the glorious part,
And join with thee, as gen'rous heart to heart!
Dart o'er wilds unknown to human sway,
Where the lone eagle wings his dreary way;
Or where athwart the solitary step*,
The Star-led ARAB wets his parching lip
From jaded camels; but at length o'ercome,
Ne'er ends his journey, ne'er reviews his home!
O! Could we pierce through Nature's wilds, and find,
Lost in those wilds, the PHILOSOPHIC MIND!
Recall the harrass'd Persian into sense,
And bid anew the reign of Taste commence.—
The lazy Asiatic rouse to thought,
Improve the soil with Nature's riches fraught,—
With quicker navigation cut the stream,
And with fresh force direct the fervid beam,
Of lightning science to the barb'rous breast,
And force the blood-stain'd warrior to be blest!
On Attic plains, a new Lyceum raise,
CONFIRM THE WAVERING CANDIDATE FOR
PRAISE;
Bid Academia's grove fresh honours rear,
And with renewing verdure meet the year:
Lead the wild Tartar from his Caspian shore;
Lead the new Russ from Volga's icy roar;
Let them no more the pathless desert rove,
But yield to science, and bend down to love!

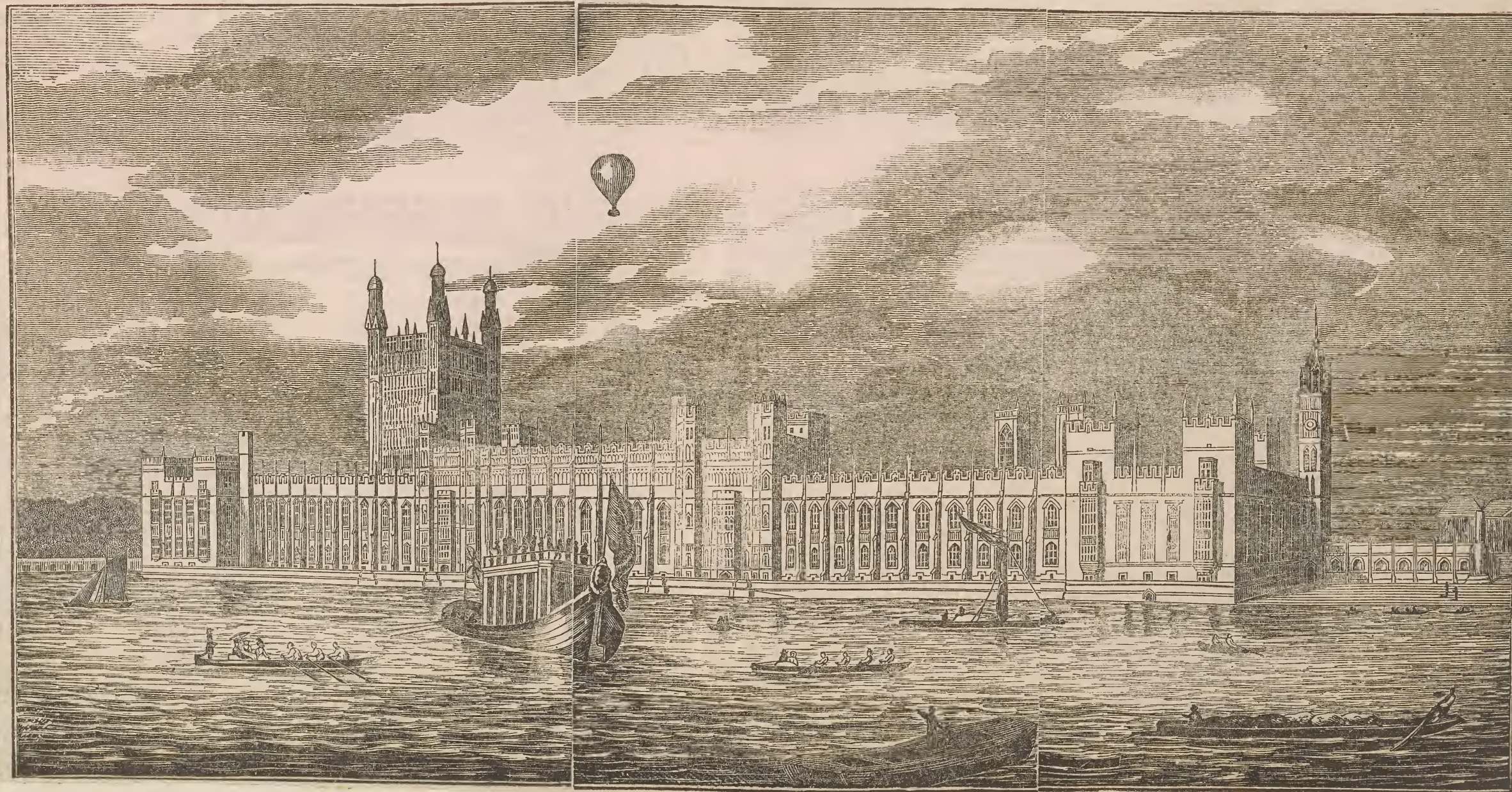
"To Southern climes, where tawny nations stray,
Fast by the throne of ever-burning day—
Where few moist clouds their gentle influence shed,
Or rest benignant on the mountain head—
Where the scarce grove, from noon's destructive heat,
Affords no shelter and no cool retreat—
Where the parch'd native, savage and forlorn,
Views undelighted his resplendent morn,
That, rising from the east in glories drest,
Yet fires no transport in his gloomy breast:—
Convey the pleasures and the arts of life,
And sweet domestic bliss, the balm of strife.—
Convey philosophy—convey the art,
To polish nature, and to raise the heart!
On slavish MEXICO new treasures pour,
Prefer the human to the min'ral store;
Make Europe open all refinement's charms,
And carry Science, where she carries Arms!"

* Russian term for the Desert.

ALMANACK for 1837;

PRESENTED GRATIS WITH "THE WEEKLY CHRONICLE."

THE NEW HOUSES OF PARLIAMENT.



Travelling in *Aerial* vehicles may soon be expected to be reduced to as great perfection as in our mail coaches. An Author has published a book at Vienna, shewing that *eagles* may be used in drawing air balloons. He likewise lays down rules for yoking and driving them together, with the whole system of their *manege*. This certainly is a step beyond building castles in the air!

Feb. 5. 1802.

The Gentleman whose ascension in the English balloon, as announced for to-morrow, is the well known Professor of Natural and Occult Philosophy, and author of a very ingenious and curious work on the sciences of Natural Magic, Alchemy, and Hermetic Philosophy.

Aug. 11. 1802

Citizen Hulin, chef d'escadron in the 15th Regiment of dragons, at a special meeting of the Academic Society of Sciences at Paris, on the 8th inst. read a memoir on the practicability of directing balloons at pleasure. He proposed to adapt to them a reversed parachute, the effect of which will be to retard their ascent and horizontal motion.

Aug. 19. 1802

A practice has obtained of letting off Fire-Balloons from different parts of the Town. This is extremely dangerous, and ought to be immediately put a stop to.

When some more lives have fallen a sacrifice to idle curiosity, some attempts will perhaps be made to put a stop to the *Balloon mania*, which seems to have revived in all its former excess, though it is evident that nothing can be made of the invention, of any use to mankind.

Aug. 1802

BALLOONS. Sept. 1802

At the Chateau de Meudon, one of the forfeited estates of the Emigrants, not far from Paris, there is an Aerostatic School. One of the Generals who ascended at the battle of Fleurus, to reconnoitre the camp of the Enemy, presides in it; and a Balloon of thirty feet in diameter, is constantly kept inflated. The same inflammable air will serve for about three months, but it slowly, and almost imperceptibly, grows weaker.

Many improvements have been made on the fabrication and filling of Balloons; they are made of silk wove at Lyons; and great advantage is found in varnishing them only on the outside; for, when varnished both without and within, they not only are liable to crack and turn mouldy, but the air corrodes, or destroys the varnish with which it comes in contact.

At Meudon, the Professor, with a number of his Students, mount in the Balloon, and remain stationary during whatever time they please, being retained by ropes, which others of the students below keep hold of. By these means experiments are made with great ease, certainty, and deliberation.

Hitherto the minutes of these repeated experiments have not been published; but it is expected that they will, on some future day, be made known to the world.

Many persons have proposed to regulate the direction of Balloons, but the nature of things seems to have formed an irresistible impediment. From navigating the water, we have learnt, by the experience of some thousands of years, that there must be some great force exerted from within the vessel, such as oars or sails, acted upon by the wind. Now as a Balloon is all immersed in one medium, or fluid, sails cannot be of any avail, because there being nothing to resist, the Balloon, like a body entirely immersed in water, must follow its direction, be the form what it may; and as to any interior force, there is not any animal, nor any machine, the weight of which the Balloon is able to carry, of sufficient force to work wings or oars so as to produce any movement contrary to the impulse of the medium in which it passes. The string by which a flying kite is held, answers the same purpose with the resistance of the water in the case of a ship; and the moment that that force ceases to exist, the kite, or the substance that is carried along, goes as the current directs. This, we believe, will always be the case with Balloons, although we allow that much may be expected from the efforts of ingenious men, for a long period directed to its improvement.

PEDESTRIAN USE OF BALLOONS.—The pedestrian use of Balloons remains yet untried in Great Britain. On the Continent it has been ingeniously proposed; for every cubic inch of the contents of a Balloon, the weight of a person bearing it on his head is rendered one ounce lighter. A Balloon may be easily carried on the head, which shall take full 50lb. from the weight of a person walking. It is fixed by straps to a leather belt. These straps pass through a wooden support, by which the Balloon rests on the head. Over the whole Balloon is a net-work, which preserves it firm in its position, and in its connection with the wooden support. The leather belt passes round the waist. From it hang two bottles, in which are the materials for a supply of inflammable gas, to be put into the Balloon by a cock when any part escapes of that with which it is filled. The walker is furnished also with two oars, covered at one end with taffety, to assist his progress. The fabric of the Balloon is of gummed taffety.

Sept. 13. 1802

TO ENGLAND'S BRAVE SAILORS. 1802

WHEN the Balloon Mania* has subsided, John Austin, No. 10, Essex-street, Strand, proposes an Abarisian Machine or Parachute, to go before the wind, its basis is Reason, Strength, and Utility. There is no doubt but the Air is as navigable as the surface of the Water; no Seaman can doubt the strength and capable parts of the powers of action quoted and courted, and where travelling one mile a minute with ease and safety, and the landing from ship on a lee shore any situation equal to from Blackfriars Bridge to the top of St. Paul's, or more lofty, I say, where such is required, it will prove of utility in the three first attempts to descend with a Parachute, which operates only by the pressure and resistance of the Air, there was too much Wind, and the descent itself was more dangerous than useful. I court Boreas's greatest power. Mr. A. will wait on any Nautical Gentleman with his Model, submitting to their understanding, he says, the majority, or seven out of eight, will be advocates for it, who desires an opportunity to volunteer his service for the good of the Royal Navy, Navigation, and Commerce.

* Mania, from this reason, the expence exceeds the utility.

It is rather surprising that our aerostatic travellers complain so much of want of refreshments during their journey, considering how many *cafes* in the air our late Ministers caused to be erected on the ruins of the French Republic, and how many *King's heads* and *King's arms*, and *Mitres* and *Crowns* he scattered in the clouds.

1802

Some Gentlemen were conversing lately upon an Aerial Traveller, who was supposed to have been so long in the air coming from the Continent, that his strength was nearly exhausted: one of them observed, that it was singular that he did not endeavour to descend sooner. An Irish Gentleman who was present replied, that he suppose he had thrown out all his ballast before.

1802

The Balloon mania, it is apprehended, will now subside, till some further discovery entitle the invention to further notice. At present, its utility is confined to an exhibition of *personal courage*, which even women are anxious to share.

1062

GARNERIN is accused of committing various *trespasses* in his late descent; some on the *grounds* of the *illiberal*, and many on the *feelings* of the *liberal*.

THE ASCENSION OF THE BALLOON

HAVING attracted Public Attention for this some time past, and Half-a-Guinea demanded for Front Seats, to see this wonderful Phenomenon, TOWNSEND and Co. wish to call the attention of Ladies to the Old Balloon, No. 27, Oxford-street, which they may ascend and descend without the fears attending an Aerial excursion, and have front seats gratis, to inspect the Beauties it contains: which consist of rich India Shawls; from two guineas to 200; elegant Chintz Furnitures, modern patterns, their own printing, 1s. 10d. worth 2s. 10d.; Printed Cambricks, only 2s.; Ell-wide ditto, 2s. 10d. generally charged 3s. 10d.; 120 Pieces of yard and half wide Cambric Muslins, delicate colour and quality, 2s. 10d.; Rich Colonnade and small-pattern worked India Muslins, some of which are a little soiled, to be sold astonishing bargains; with every other Description of India and British Muslins, equally cheap; a Lot of Stout Dimities, at 1s. 6d.; Curious Hollands, Irish Linens, and Suffolk Hemps. Ladies who have large purchases to make, will find a few boxes well worth their attention, not being of that flimsy texture so generally sold for some time past, but warranted equal, if not superior, in colour, quality, durability, and cheapness, to any that may have been bought at any former period; India Nankens, capital colours, 5s. 6d.; Table Linen, Russian, Lancashire, and Irish Sheeting, Counterpanes; Silk and Cotton Hose, with many other articles uncommonly cheap, at the (please to observe) Old Balloon, No. 27, Oxford-street, where two shopmen, accustomed to the town trade, are wanted.

1802

A Balloon, launched from Westminster, on the 6th of this month, at half-past two o'clock, was found lying in the warren of Mr. Thomas Gibbs, of Balcmb, about three miles from Crawley, at a quarter before four o'clock the same day; having travelled a distance of 36 miles in one hour and a quarter.

May 19. 1803

A RUSSIAN FETE.

An article from St. Petersburg, dated on the 5th ult. says:—The name-day of the Empress's Mother was celebrated on the 3d with unusual magnificence. All the foreign ambassadors, and other persons of distinction, dined with the Imperial Family at Peterhoff: in the evening were a public masquerade and supper. The garden was superbly illuminated, and the water-works played—at least 30,000 persons were in the garden in the evening, and 7000 at the masquerade. At 11 o'clock the Imperial Family, after driving round the garden, appeared at a balcony, whence there was a view of the sea, on which lay five yachts finely illuminated, the middle one with the initials of the Empress, in coloured lamps. At the same moment, two air balloons, of transparent fire, rose from the edge of the water; sparks of fire fell from the lower one, and suddenly a beautiful fire-work arose from the gondola;—at length the lower balloon took fire, threw forth a flaming shower of various colours, and then set on fire the balloon which floated above, and a sudden explosion destroyed both. The sight was very fine. The two balloons cost 3000 roubles, and the whole fete 30,000.

Sept. 1803

AEROSTATION.—Professor ROBERTSON, of Hamburg, accompanied by M. LHOERT, has lately made a second aerial excursion, which has confirmed many of their former experiments, and produced some new and interesting results. M. ROBERTSON has ascertained that, sounds may be conveyed upwards to the height of 1200 feet, while downwards they can be conveyed only half that distance.—When about seven thousand two hundred feet from the earth, he enclosed, in an instrument invented by M. HEZ, four inches of the surrounding air, along with mercury, and marked exactly the point where the air and the mercury were united; and when he returned to the earth, he found that the mercury filled the whole tube within a tenth. This important experiment seems to prove, that in the upper regions there exists nothing but vapours, and no atmospheric air.

Oct. 3. 1803

AERIAL ASCENSION.

1804

ST. PETERSBURGH, JULY 17.—The ascension in the air, undertaken by the desire of the Academy of Sciences, to make experiments, has had the desired effect. The famous chemist, SACHAROFF, and Professor ROBERTSON, ascended in a favourable state of the weather, from the garden of the cadet-corps, at 25 minutes after 7 o'clock in the evening. The members of this learned body, who so much interest themselves for the advancement of sciences, attended, and witnessed the ascension, the most beautiful yet seen in Russia. The three small balloons sent into the air as guides, or to reconnoitre the wind, went first to the south, but soon afterwards to the east, and towards the Baltic. This did not prevent the aeronauts from ascending, having with them several instruments to make experiments. The balloon floated over the Baltic Sea for upwards of an hour. Two different winds were felt blowing in opposition. From the city a manoeuvre was observed, which had for its object to cut through the upper wind, and by it procure the travellers an opportunity of getting to the southward, and over the land. Afterwards they ascended higher and higher, until ten o'clock, when the balloon was entirely lost sight of, even by the persons following it with the telescopes from the Observatory. The next day an express brought the President of the Academy of Sciences information, that the aeronauts had, without any accident, arrived at Siwaretz, 60 wersts, or near 26 leagues from this capital. They descended forty-five minutes past ten in the English Garden opposite the castle of General Domboff, who received and entertained the aerial travellers with the greatest hospitality. The result of this ascension, undertaken only for scientific experiments, will soon be published, and found very interesting as well as instructive.

Jan. 1806

An attempt was lately made by Messrs. Pauli and Lemerrier, of Paris, which proved, that balloons can be steered and directed, according to the pleasure of the aeronaut. They invented machinery, by which they moved the wings attached to the balloon, and the rudder resembling the tail of a bird. On ascending they were conveyed by a gentle East wind; and, on working the machinery, they made way slowly against it. At length after a voyage of five hours, they descended at Denouville, near Chartres, convinced of the practicability of their experiment.

Mr. GARNERIN has published his opinion, that Mr. MOSMENT, who lately fell from a balloon in France, and was dashed to pieces, met his death from his own negligence. "The car in which he ascended (says Mr. GARNERIN), was too shallow; the cords by which it was attached to the balloon were too far apart; and it is probable, that when Mr. MOSMENT was leaning over to let an animal drop in a parachute, that he lost his balance, and was precipitated to the earth."

June 2. 1806

Paris, April 22. The balloon in which the unfortunate M. Mosment ascended, was found complete between Charleville and Charleroi. In the car attached to it, which had likewise received no damage, a pistol was found, with a small loaf and some meat; the cords by which the car was attached to the balloon were also entire.

1806

Yesterday se'nnight, a curious experiment was made at Woolwich with balloons, intended to carry dispatches from one post to another, when the wind serves. A match is put in one part of them, which at the end of a certain time, sets fire to a string sustaining a parachute, or other contrivance; and when the string is consumed, the parachute and dispatches fall to the ground, and are picked up by the centry, who is on the watch for them at some distant post. The length of time that the match is to burn, is regulated by the velocity of the wind, and the distance the balloon has to travel.

April 1807

A small inflammable balloon, which was sent up from Hackney on the day of the Jubilee, was found two hours and five minutes after the time of its ascent at Wilbraham, near Cambridge; thus it must have travelled at the rate of about 25 miles an hour at least.

1809

FLIGHTY EXPERIMENTS.

The art of rising and moving in the air, by means of wings, continues to engage the attention of a number of persons in Germany. At Vienna, the watch-maker DEGEN, aided by a liberal subscription, is occupied in perfecting his discovery. He has recently taken several public flights in the Prater, which will be detailed in one of our subsequent numbers. At Berlin, CLAUDIUS, a wealthy manufacturer of oil-cloth, is engaged in like pursuits; he rises in the air without difficulty, and can move in a direct line at the rate of four miles an hour; but his wings are unwieldy, and he cannot turn round in them. At Ulm, a tailor, named BERBLINGER, announced on the 21th April, that he had, after great sacrifice of money, labour, and time, invented a machine in which he would, on the 12th May, rise in the air and fly twelve miles.

1809

BALLOONS.—A whimsical person is preparing an apparatus composed of two small balloons, which will support the weight of his body, permitting his feet just to touch the ground; these are joined as boys join bladders, or corks for learning to swim, and are to be fastened under the arms in the same manner, the weight of the body being supported by the balloons; he expects, with the addition of a couple of wings, to be able to walk, run, or fly, at pleasure.

The ascension of the Mechanician, BITTORF, from Mannheim, was truly disastrous. When he had risen to a considerable height, he perceived, too late, that his balloon was damaged, and had no other resource than to open the pump. The balloon descended with extreme velocity, but, owing to the wind, without preserving its gravity: the inflammable matter which it contained kindled, the shreds caught fire, and fell upon M. BITTORF's head, arms, and breast, which were much burnt.—On a sudden, his crazy vehicle struck upon the roof of a house, two stories high, from which he was precipitated, with a gondola, attached to the balloon. The inhabitants took him up, and carried him, covered with wounds, to his own house, where he died the next day in great agony.

1812

Mr. Robertson made, on the 19th of Oct. his forty-eighth ascension, at Liege. At a certain height he launched a parachute, which descended safely with a live rabbit. In about a quarter of an hour, meeting with a contrary current of wind, he determined on descending; but when the balloon touched the ground, it rose thirty feet, and rebounded against a tree. Having thrown out his grappling irons without success, Mr. Robertson seized on the topmost branches, abandoned his balloon, and alighted safely at the entrance of the little city of Vise.

1812

ROYALTY THEATRE.

THIS EVENING, Nov. 2, will be performed, a Burletta founded on KING LEAR, and his Three Daughters. To conclude with a Burletta, called THE BALLOON, taken from the Farce of the Magul Tale.

LONDON.

MONDAY, NOVEMBER 9. 1812.

AEROSTATIC, OR IMPROVED BALLOON.

THE exhibiting of BALLOONS, ever since the ascension of Mr. Lunardi, in the year 1782, has been continued, without any success in directing their course, which has always been a matter of regret with the Public. It is therefore presumed that an attempt to construct a Balloon, so as to be elevated or depressed at pleasure, and capable also of being conducted to a given point, varying from that to which the wind directly blows, if but making an angle of twenty degrees (though it is expected that it may be directed to form an angle of forty-five), which constitutes four points of the compass, will meet with general encouragement, and should this be accomplished, may, by practical experiment, be improved so as to become of great utility, and the gratification of thousands; which will undoubtedly be the case, if we should ever step into the car attached to a Balloon with the same confidence of a safe arrival at a given place, as we now step into any land or water carriage. However distant and chimerical this may appear, the attempt is submitted to the Public. The expense of such an undertaking is evidently too great, except for an opulent individual; the Public are therefore informed, that a Subscription is opened, of Five Shillings, which will entitle each Subscriber to the view of a Model, explaining the apparatus by means of which the Balloon is to be guided, elevated, or depressed at pleasure; the current air discovered, at different heights; and, it is hoped, the dreadful consequences, in case the Balloon should burst, prevented by a gradual and safe descent. Should the Community be inclined to encourage this undertaking, and enable the Projector to complete the Balloon he has in contemplation to construct, it is hoped they will manifest their approbation, as the Subscription is intended to be closed early in June.

This new Aerostatic Balloon will be constructed under the direction of Henry Williams, many years Drawing-master to Carlisle House School, Lambeth.

For the accommodation of such of the Nobility and Gentry that are disposed to promote Aerostation by a more liberal subscription, and to whom the utility and pleasure may be accessible, Subscriptions of Ten Pounds and upwards are received at Messrs. Biddulph and Co, Charing-cross; Mr. Wand, confectioner, Bond-street; and at S. Burton's, stationer, No. 156, Leadenhall-street, where a Model of the Balloon is left for the inspection of the Subscribers, of whom it is requested to leave their Address, that notice may be sent them of the time and place of ascension, to prevent depredations and mischief that may occur from the great concourse of the populace, if made known by public Advertisement. And admitting the Subscriptions by the 1st of June should not be sufficient for defraying the expense of the undertaking, that they may be consulted whether to continue advertising, or each to receive a Dividend of the Subscription, after deducting what money has been expended in Advertisements.

H. WILLIAMS,
Carlisle House, Lambeth.

Of S. Burton, at No. 156, Leadenhall-street, Directions may be had for playing Eight new Variations of the Game of Darts, under the title of Constitutional Checks, by which the vivacity and interest of Play are considerably diversified and increased. The Polish and common Games are hereby combined and improved, and the Game is susceptible of being played by Two, Three, or Four Persons at the same time: peculiarly adapted to the amusement of seafaring gentlemen.

IMPROVED AIR BALLOON.

Mr. Editor—As I am a constant Reader of your excellent Paper, I observe that it is open to literary and scientific as well as political correspondents; I am, therefore, induced to solicit the attention of the curious to a proposed improvement in the construction of Air Balloons by a Mr. Williams, (a model of which is now exhibiting at Mr. Burton's, stationer, Leadenhall-street), whereby he mounts in the car will be able to vary their course from the wind, in an angle of 20 or 30 degrees, by means of a movable sail; and also to elevate and depress it at pleasure, by a different movement of the same sail, without the loss of any of the gas, therefore the same balloon and gas will serve for several ascensions. I was so much pleased by the inspection of the model, that I determined to send on this imperfect outline of the invention, in hopes of attracting the attention, and having the opinion of some of your learned Correspondents. In my humble opinion it promises to obviate all the difficulties which have hitherto prevented the management of balloons. If, Mr. Editor, you think the foregoing worthy of insertion, you will greatly oblige

May 17, 1813.

A FRIEND.

THE Nobility and Gentry, and those of the Public, who have generously declined the return of their Subscription for defraying the expense of constructing a Balloon that could be elevated, depressed, and directed at the pleasure of the aeronaut, with other advantages too numerous here to mention, are informed, that their receipts will entitle them to admission to the inflating and ascension of a Balloon constructed on the principle of that which was intended to have been exhibited on his Majesty's Birth-day, that is expected to ascend in the course of the present month of June, from the Bowling-green of the Horns Tavern, Kennington.

It is requested that those Subscribers who mean to avail themselves of this privilege, to apply at the bar of the Horns to have their receipts certified and sealed, where tickets of admission are to be had, at 5s. each, as no money will be taken at the entrance to the Green, not even on the day of ascension, it being presumed that this mode of proceeding will prevent the depredations usually committed on these occasions, as the holders of tickets and subscribers will be the only persons interested in these exhibitions.

The Model at No. 156, Leadenhall-street; and the Drawing at Mr. Wand's, Confectioner, Bond-street, remain on view to Non-Subscribers, 1s. each.

1813

THE FIRM of Messrs. BIDDULPH and Co Charing-cross, decline receiving Subscriptions of Ten Pounds and upwards, for the accommodation of the Nobility and Gentry, which is advertised every evening in The Statesman; as the intention of that Subscription is wholly to promote Scientific Knowledge.

It is no longer a question if BALLOONS can be directed, but if the amount of the Subscription will be sufficient to enable the Projector, H. Williams, to put it in practice by the 1st of June?

A Drawing, that will clearly demonstrate the practicability, is to be seen at Mr. Wand's, Confectioner, Bond-street, where Subscriptions of Five Shillings are received, for which a receipt is to be given, that will admit each Subscriber to the first Ascension, and to view the Model, now exhibiting at 156, Leadenhall-street. The Public are requested, for particulars, to see the Advertisement in the Evening Paper.

May 1813

M. Degen took an aerial flight in Paris, on 15th August. He ascended in a balloon about three in the afternoon, from a platform raised in the middle of the Seine, between the bridge of Concord and the bridge Royal. Assisted by his wings, he moved horizontally from the platform to the bridge Royal, when he rose nearly perpendicularly to the height of 5400 feet, following the direction of the Seine through Paris, lest he should experience any accident, and was successful in guiding the balloon by means of his wings against the wind, which was very strong. Throughout he evinced much coolness and courage. At six o'clock he descended in the plain of St. Maude; at eight he returned to Paris.

ON THE BALLOON, EXHIBITED IN HONOUR OF NAPOLEON'S BIRTH-DAY.

Apt emblem of Usurper's pow'r,
It rises with much toil and trouble;
Then, soaring, swelling, its short hour,
It sinks a breathless, worthless, bubble!

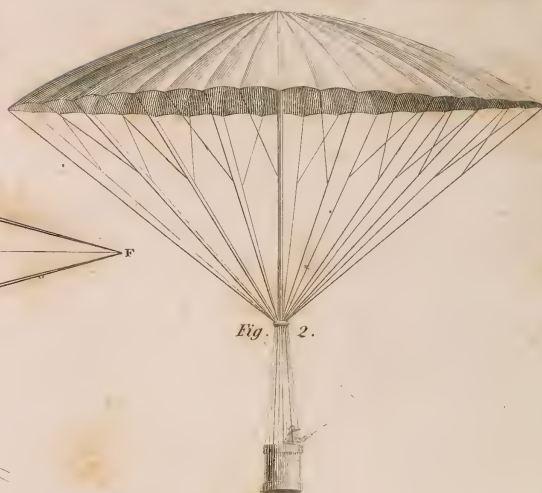
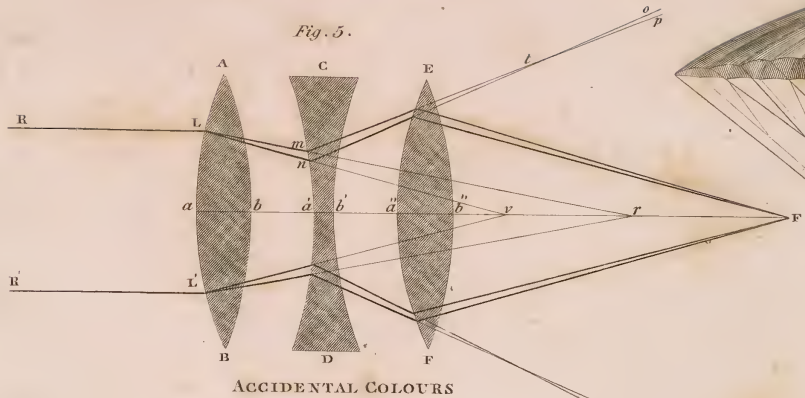
KING JOE'S RELIGION.

Poor Joe's Religion's such, 'tis said,
That he would mock his Maker;
But, when from Wellington he fled,
'Tis thought he turn'd a Quaker!

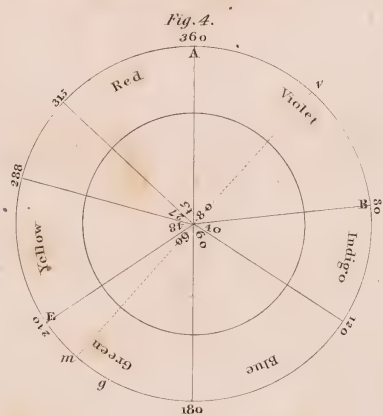
1813

ACHROMATIC OBJECT-GLASS

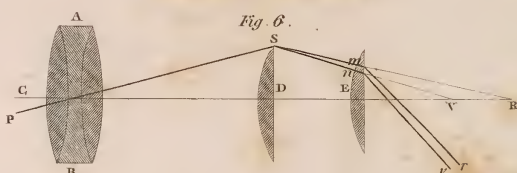
AERONAUTICS *PLATE IV.*



ACCIDENTAL COLOURS

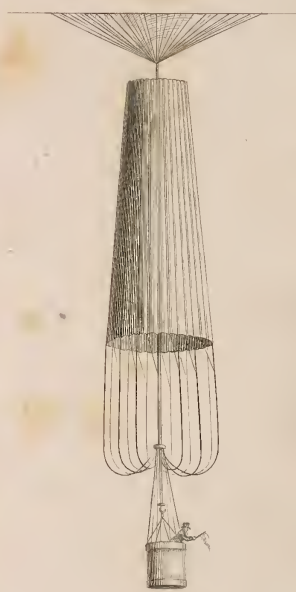


ACHROMATIC EYE-PIECE

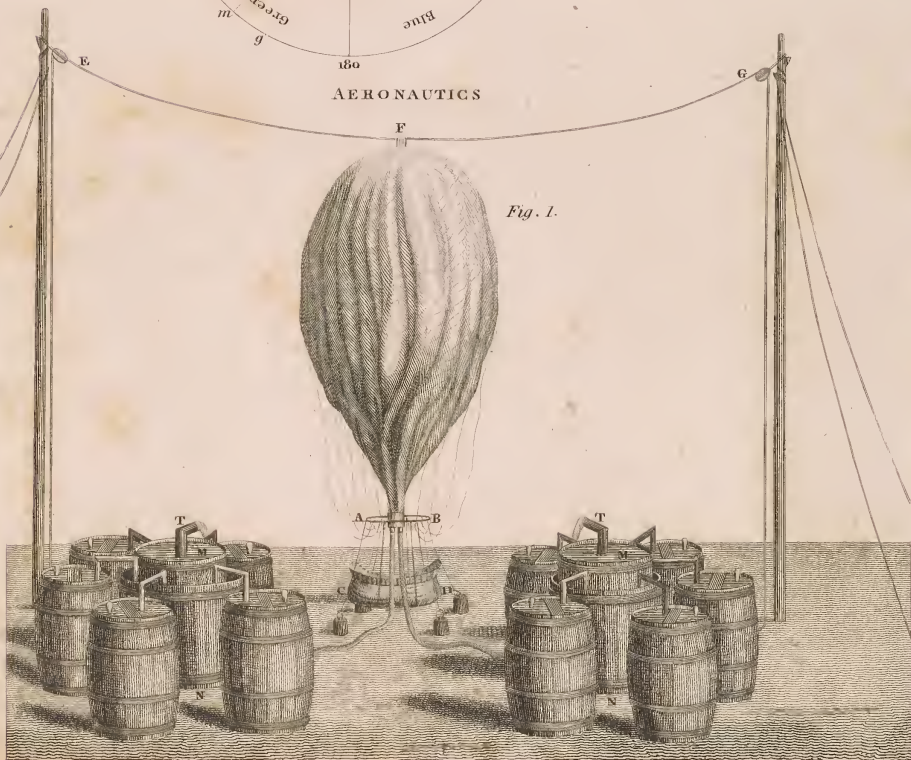


AERONAUTICS

Fig. 3.



Eng'd by Wilkinson & Sons



AERONAUTICS

Tab. II.

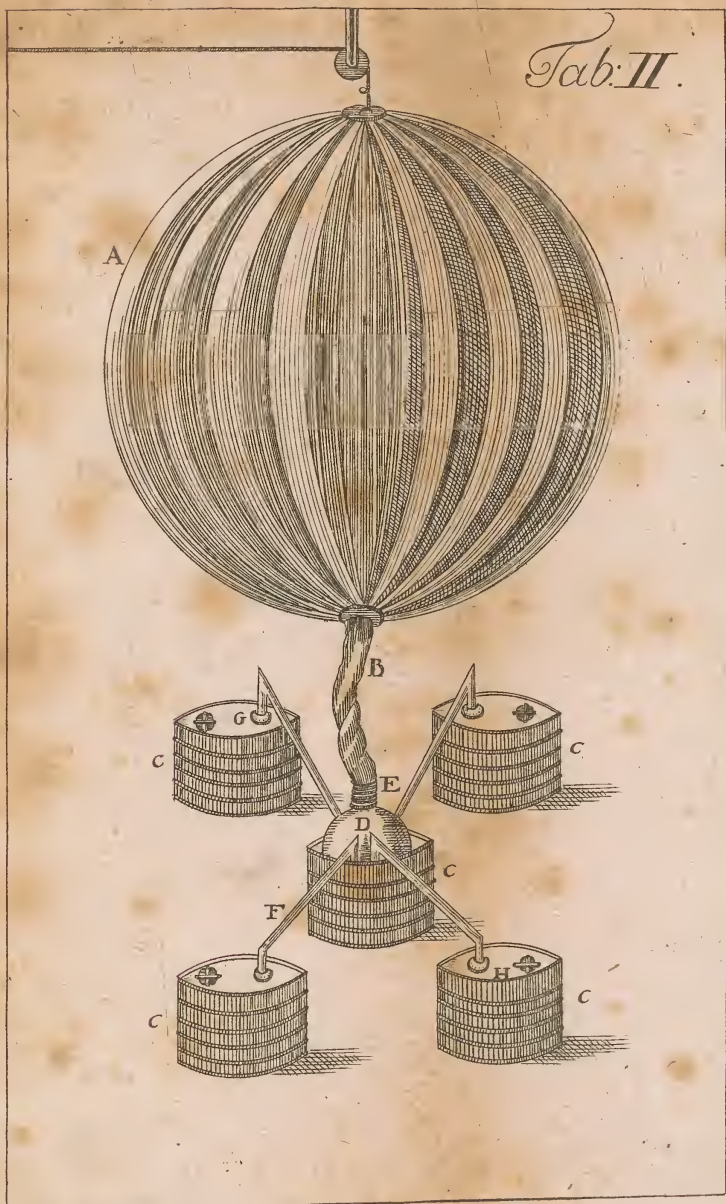
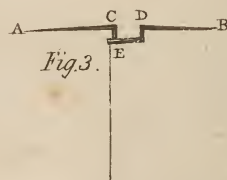
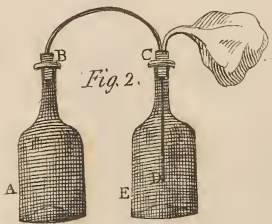
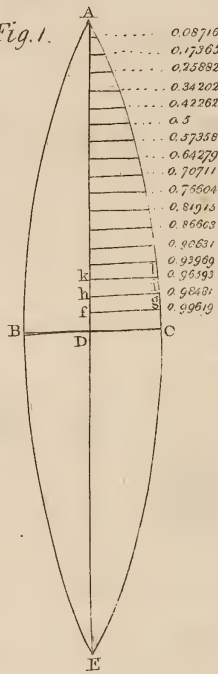


Fig. 1.



A Dialogue on the nature of Air Balloons.

2 What is an Air Balloon?

a. A hollow globe, made of thin silk, well varnished, and filled with inflammable Air; which Air, being ten times lighter than common Air, disposes it to rise in common Air, as a cork does in water.

2. What is inflammable Air?

a. What some philosophers call phlogiston.

2. How is this phlogiston prepared and introduced into the Balloon?

a. By putting some nails, or other Iron, into a narrow mouthed vessel, and pouring upon it a quantity of oil of Vitriol and common Water, which will excite an effervescence; and as the inflammable Air rises, like smoke, in a plentiful stream, it must be conveyed by a pipe into the Balloon, which is soon perceived to have a disposition to ascend.

2. How high will it go?

a. Till it rises into an Atmosphere as light as itself, and there it will remain, (without some foreign aid) till it bursts or falls.

With Magazine, 1784

Rebus. by James Peck.

Seven Thirteenths of an upright, will shew you the name
When you've rightly transpos'd and connected the same
Of one who has travell'd the high road to Fame.

Answers.

Indeed Mr. Peck we have heard it at Wye,
That Lunardis the man who ascended the sky.

You ask who has travell'd the high road to Fame?
The question is answer'd. Lunardis his name.

Lunardis fame for mounting high,
Has reach'd, no doubt, as far as Wye.

With Magazine 1784.

extracted December 12. 1839 - by William Upcott of Brighton.
Collector of engravings connected with Aviation

CHRONOLOGY OF THE ART OF FLYING.

For many centuries—dating back, we presume, to the age of Icarus—the theory of flying with wings was indulged in by mankind. "To swim," says Dr. Johnson, "is to fly in a grosser fluid: to fly is to swim in a subtler." In the middle ages many plans were devised for imitating the motions of birds: even Friar Bacon and Albertus Magnus are said to have indulged in those aerial speculations. In the 16th century an Italian attempted to fly from the walls of Stirling Castle to France, but unluckily he no sooner expanded his wings than he fell and broke his leg. He said that the next time he would try eagle's feathers; but he never tried again. In 1617, Heyder, rector of a grammar school at Firbingen, delivered a lecture on flying, which induced a learned monk to make wings on Heyder's principle, but the moment he committed himself to them, he fell and broke both his legs. At last—no wonder—the experiment was altogether abandoned. A very profound Italian mathematician and anatomist wrote a book to prove that the weakness of the pectoral muscles in man rendered it impossible for him to fly. Good master anatomist, was that the only reason? Does specific gravity go for nothing, in the absence of the air-cells that assist the birds?

The indefatigable Jesuits were the next speculators in the art of ascending through the air. But they devised the more practicable mode of traversing the winds by balloons, although their first attempts were awkward enough. One Father Laurns [he was no doubt an Irishman, and his proper name was Laurence] in 1630 asserted that a spherical bag filled with dew, and exposed to the sun at noon, would ascend. Marry why? because the dew came from Heaven by night, and ascended by day! He illustrated this curious theory by a goose egg, which filled with dew would, he asserted, rise up and remain suspended in the air. His disciples tried the experiment, and were woefully disappointed to see the egg lie like a stone on the ground.

The next attempt was that of a bag filled with smoke, having valves and a boat attached to it. This was the nearest approach to the modern balloon—but it failed. In 1690, Francis Lama, a worthy Jesuit, proposed the union of four copper balls, each twenty-five feet in diameter, and only the 225th part of an inch in thickness. These balls would be of themselves lighter than air; but being filled with rarified air he assumes that they would rise with a force equal to 1,220 lbs. But Lama could find no hacker, and he was himself too poor to make the experiment. As a plate, Father Lama's design looks very imposing. A Dominican friar (it would seem that the ecclesiastics of those days had a strong passion for soaring) devised an aeronautic machine in 1755, on a scale of magnitude much greater than his predecessors had dreamt of. His plan was to collect the purest atmospheric air, and place it in a bag of sailcloth, the dimensions of which should be more than a mile every way. The ascensive force of this stupendous vessel would, he contended, transport through the air a whole army, with its artillery, waggons, horses, provisions, and all other appendages. Like the *Dom Kirche* of Cologne, this enormous project was abandoned for want of means. But by such experiments as these we are brought at last to the invention of the practicable balloon which originated in France in 1782.

Two ingenious mechanics, Stephen and Joseph Montgolfier, had long contemplated the construction of the balloon apparatus, and at length Joseph Montgolfier formed a small silk bag in the form of a parabolopædon, having a capacity of forty-five cubic feet, filled with the smoke of burnt paper. The bag, when freed of its stay, rose instantly. He then constructed a globe thirty-five feet in diameter, and lighted a fire within to keep up the rarification of the air. It rose with a force of 500lb. Having thus satisfied themselves, to their inexpressible delight, they made the first public experiment in the presence of their townsmen on the 5th of June, 1783. As the balloon arose the feelings of delight and astonishment, not unmingled with awe, of the villagers, were indescribable. The news rapidly spread to Paris, where, in the following August, M. F. de St. Fond sent up a balloon filled with hydrogen gas, but owing to the awkwardness of the men, it did not answer the purpose. The Parisians, however, were delighted, and on the next day another balloon was sent up to the height of 3,000 feet in two minutes amidst the firing of cannon and the cheering of the multitude. The Montgolfiers were now invited to Paris, and sent up a balloon filled in eleven minutes with the smoke of burnt straw and wool. It rose to the height of 1,500 feet, taking in the basket which hung from it a sheep, a cock, and a duck, the first animals that had ever left the earth in such a vehicle. The globe descended at the end of eight minutes, and the animals came down unhurt. Montgolfier then made a balloon of epheroidal form, forty-five feet in diameter, and seventy-five feet high, and in the same month Piloter de Rozier, an eminent naturalist, ascended in it, having the honour of being the first aeronaut. In a few days after he was accompanied in another ascent by the Marquis d'Arlan. Each time they had straw with them to supply the fire in the balloon. A few holes were burnt in the balloon, but by the application of wet sponges they prevented the combustion from extending, and having traversed six miles in twenty-five minutes they descended in safety. Meantime honours and riches were heaped on the fortunate Montgolfiers. The Academy of Sciences gave them an annual prize of 600 livres. The elder brother received the badge of St. Michael, and a patent of nobility; and a pension of 4,000 livres was conferred on the other.

Several ascents were now made with success. On the 1st of December, 1783, a balloon filled with hydrogen gas took up aeronauts for the first time in the persons of M. M. Charles and Robert. On the 19th of January, 1784, the elder Montgolfier ascended from Lyons in a balloon, 134 feet high and 109 feet wide. The dimensions of this have not been equalled since. It took up eighteen cwt. of ballast, besides six voyagers. This balloon, in dimensions, expense, and decorations, has far exceeded all succeeding ones. In the same year, Madame Thible ascended at Lyons before the King of Sweden. She was the first aeronaute. On the 19th of September, M. Robert and the Duke of Orleans ascended from Paris, and travelled 135 miles in five hours, during which his royal highness was frightened almost out of his senses. This is the longest voyage ever made in a balloon. On the 18th of June, 1786, M. Festin ascended from Paris, and remained a whole night in the sky. Previous to the darkness he descended and re-ascended several times. On the 25th of November, 1783, the first ascent in England was made by Count Zambecari, an Italian, in a gilt balloon, from the Woolwich artillery-ground. On the 21st of September, 1784, the Chevalier Lunardi made the first ascent from London. On the 7th of January, 1785, M. Blanchard and Dr. Jeffries, an American physician, ascended at Dover, and descended in a forest near Calais, having crossed the English Channel in two hours and three quarters. M. Pilater de Rozier and M. Romaine, anxious to return the visit to the English nation, ascended from Boulogne June 15, 1785. The better to regulate their course, they suspended a smoke balloon from that filled with hydrogen gas; but they had not been up more than a quarter of an hour when the spectators were paralysed by terror at seeing the

lower balloon take fire and communicate the flames to the upper one. In a minute the car was without support, and the helpless aeronauts were precipitated from the height of a mile, and dashed to pieces on the sea shore. Since that calamity smoke balloons have not been used. In August, 1785, Blanchard used a parachute for the first time. He sent down a dog in it, which reached the earth in safety. Blanchard made more money by his excursions than any other aeronaut. On the 2d Sept., 1802, M. Garnerin, a Frenchman, ascended from London, and attempted to come down in a parachute; but he was nearly dashed to pieces against the chimneys of St. Pancras, and he was found in an adjoining field almost without life. Balloons have been occasionally used in military service. The French republican armies had a balloon attached to each division, for the purpose of reconnoitering the enemy. The decisive defeat of the Austrians, and Gen. Jourdan, in June, 1794, is attributed to the information conveyed by a balloon, which made two ascents before the battle. As it went up the second time the enemy fired several balls at it, but in vain.

After all, balloons have not justified the expectations they raised. They have conferred little or no value upon science, and their principal value is derived from the opportunity they give of seeing almost a whole kingdom at a glance. The aeronaut has only the power of ascending and descending. Nor can he reach any given point, unless the current of wind in which he happens to sail sets directly towards it.

For the MORNING HERALD.

AIR BALLOONS.

MR. EDITOR,

THIS public has sometimes been seized with a rage, which, while it evinced only the fashionable folly of individuals, was highly beneficial to trade: this therefore might well be called an innocent and harmless rage. But, Sir, another species of mania has lately broke out, which so far from being harmless, really threatens the country with imminent danger: the people seem at present *balloon mad*. I am no enemy to the trying of experiments, in the air; but I would have them confined to persons well versed in physics, in whose hands balloons might be perhaps of public utility: but when these ærostatic machines are let off in eve y street in town, and at night too, it is high time for people to look to the safety of their houses; for should these globes alight upon hay ricks or corn stacks, or on thatched out houses, no man could foresee the extent of the mischief that might ensue: houses burnt down, and families reduced to beggary, might be the melancholy consequences; and thus what was intended as pastime to some thoughtless young men, might be the ruin of the most industrious and useful part of the community. This is not the only country in which this balloon rage has shown itself; but the wisdom of foreign princes soon extinguished it in their dominions. The Archduke Leopold, sovereign of the Grand Duchy of Tuscany soon checked it by an edict, which enjoined all persons in his territories, of what rank or condition whatever, not to let off an air balloon, without his express licence; which licence however, for the sake of philosophy, he declared he would not refuse to persons properly qualified by their learning in physics to conduct aerial experiments. France, where the balloon took its birth, and where the sovereign encouraged by his presence, the launching of more than one into the atmosphere, soon perceived the necessity of following the example of the Grand Duke of Tuscany; and by a royal edict, the King forbade the general and indiscriminate use of balloons, with an exception however in favor of the learned, under whose auspices aerial navigations may still be undertaken.

Would not such a policy as this be worthy the adoption of our magistrates? The security of houses and ships from fire calls for it. Some may imagine that there is no law under the authority of which, the magistrates can prevent the general use of balloons, and recourse must be had to the sovereign power, to make a law for that purpose; but this is a mistake; the public safety is at stake; and that is a law in itself superior to any that can be made by the legislature: balloons, seen up with a lighted candle are nuisances, but still greater at night; the favorite time with the young and giddy for launching them; and those who make use of them might consequently be indicted for them, exclusive of their being answerable in a pecuniary way, for the damages that might be occasioned by them. I thought it my duty to say this much, in order to set people on their guard, and put them in mind of the consequences that may possibly attend their amusements: let those whose peculiar duty it is to watch over the public safety, take the hint and see that—*no quid detrimenti respublica capiat*.

VIGIL.

But the sublimity of the spectacle is altogether unparalleled—an object thus spacious, ponderous, and magnificent, rising or springing perpendicularly upwards, as if to rival the eagle in her flight, must be viewed with sensations peculiarly awful and affecting. It is not only a new sight, but a sight the most surprising and extraordinary, that ever the eye beheld.

O Art, how wide and extensive is thy dominion! how potent and universal thy energies! how numerous, how necessary, how interesting thy utilities! No element is either so violent or so subtle, so yielding or so sluggish, as to prove superior to thy direction.

Thou darest not the fierce impetuosity of fire, but hast rendered its qualities both obedient and useful. Thou hast softened the stubborn tribe of minerals, so as to answer many valuable ends, by assuming innumerable shapes hence weapons, armour, coin, and previous to these, all those tools and instruments which empower thee to proceed to further ends more excellent.

To thee we owe whatever we derive from all the improvements of navigation. The seas and waves are thus made subservient to man, by thy assistance. The yielding element of water thou hast taught to bear us; and the rolling ocean henceforth promotes that intercourse of nations which ignorance would imagine it was destined to intercept.

Nor is the subtle air less obedient to thy power. Whether thou wilt it to be a minister to our pleasure, or a hand-maid to our necessity. At thy command it giveth birth to founts which charm the soul with all the powers of harmony. It exports our superfluities to supply the wants of others; and it brings to our doors the riches, the dainties, and luxuries of afar. And when the great modern scheme of ærostatic sailing is perfected, who can tell what innumerable benefits may still result from thy unwearied endeavours to direct, improve, and accommodate human life?

Though the present age lays such strong claims to the reputation of having invented the art of ærostation, if we may believe ancient writers (says a correspondent) that ingenious discovery is by no means of modern date; but is to be ascribed to a Jesuit of Brasil, named Barthelimi de Guamo, who in the year 1620, made the following experiment in presence of John V. the whole royal family, and a vast concourse of people: he contrived a machine which, by means of a particular kind of fire, produced by an elaborate process, he caused to float in the air without any other support than that element; upon a signal given, it presently surmounted the altitude of all the circumjacent buildings; and rose to a level with the cornice of the palace; to prevent the machine being carried above the clouds by the winds, cords were attached to it, being held by people below, but they not managing these cords according to the direction of the artist, a gust of wind forced it against the cornice of the palace, which occasioning it to burst, the contents evaporated, and it fell. Father Guamo signified an intention of repeating the above experiment but was obliged to abandon that design, on account of the populace being enraged against him from a supposition that this philosophical discovery was a proof of his being a practitioner in sorcery.

Jan. 6. 1705.

LONDON. 1785

The invention of air balloons, Sir, we are assured, by accounts from Paris, likely to turn out of much more utility than it has hitherto been supposed those ingenious machines would accomplish. M. Le Roy, of the Royal Academy of Belles Lettres, has for some time past been making experiments with them in the navigation of boats and small vessels, and has proved, to the satisfaction of the Academicians, that a boat directed by a balloon is infinitely safer from being overset, than by any fails hitherto made use of.

BALLOONS.

THE idea of constructing a machine, which should enable us to rise into, and sail through, the air, would seem to have occupied the human mind even in ancient times, but it was never realized till within the last fifty years. The first who appears to have speculated rationally upon the subject was the celebrated Friar Bacon; he flourished in the thirteenth century, and described a machine, consisting of two hollow globes of thin copper, exhausted of air, which answered the expectations of the inventor.

About the year 1630, Bishop Wilkins suggested the idea of constructing a chariot upon mechanical principles, in which it would be possible to traverse the regions of air. Cotemporary with him was Francis Lana, a Jesuit, who proposed a method similar to that of Bacon.

In 1709, Gusman, a Portuguese friar, constructed a machine in the form of a bird, with tubes and bellows to supply the wings with air; the inventor was rewarded with a liberal pension, but his machine failed. Gusman, however, was not discouraged, for in 1736 he constructed a wicker basket, seven feet in diameter, and covered with paper, which rose to the height of two hundred feet in the air. The success of this experiment procured for him the reputation of being a sorcerer. Twenty years after this, however, the science of Aërostation began to be studied upon philosophical principles. Among the first who wrote upon this subject was Joseph Gallien, of Avignon, who, in 1755, published a treatise, in which he recommended the employment of a bag of cloth or leather, filled with air lighter than that of the atmosphere. The discovery of hydrogen gas, by Mr. Cavendish, in 1766, was, however, the nearest approach to success. Mr. Cavallo made trial of this gas in 1782; and Messrs. Mongolfier, in the same year, discovered the art of raising balloons by fire.

The first public ascent of a fire-balloon took place at Annonay, in France, in June, 1783; and, encouraged by the success of this experiment, Messrs. Robert constructed a balloon of thin silk, varnished with a solution of India rubber, which they filled with hydrogen gas; its inflation occupied several days. When completed, it was conveyed by torch-light to the Champ de Mars, and, on the 27th of August, ascended, in the presence of an immense multitude of spectators; after floating in air for three quarters of an hour, it descended in a field, fifteen miles from the place of its ascent.

for 1784. Sept. 18—21.

UTILITY OF THE AIR BALLOONS.

THE state of the atmosphere has been hitherto very imperfectly understood; and the trivial discoveries made in it already sufficiently compensate all the industry and expense attending the air balloons.

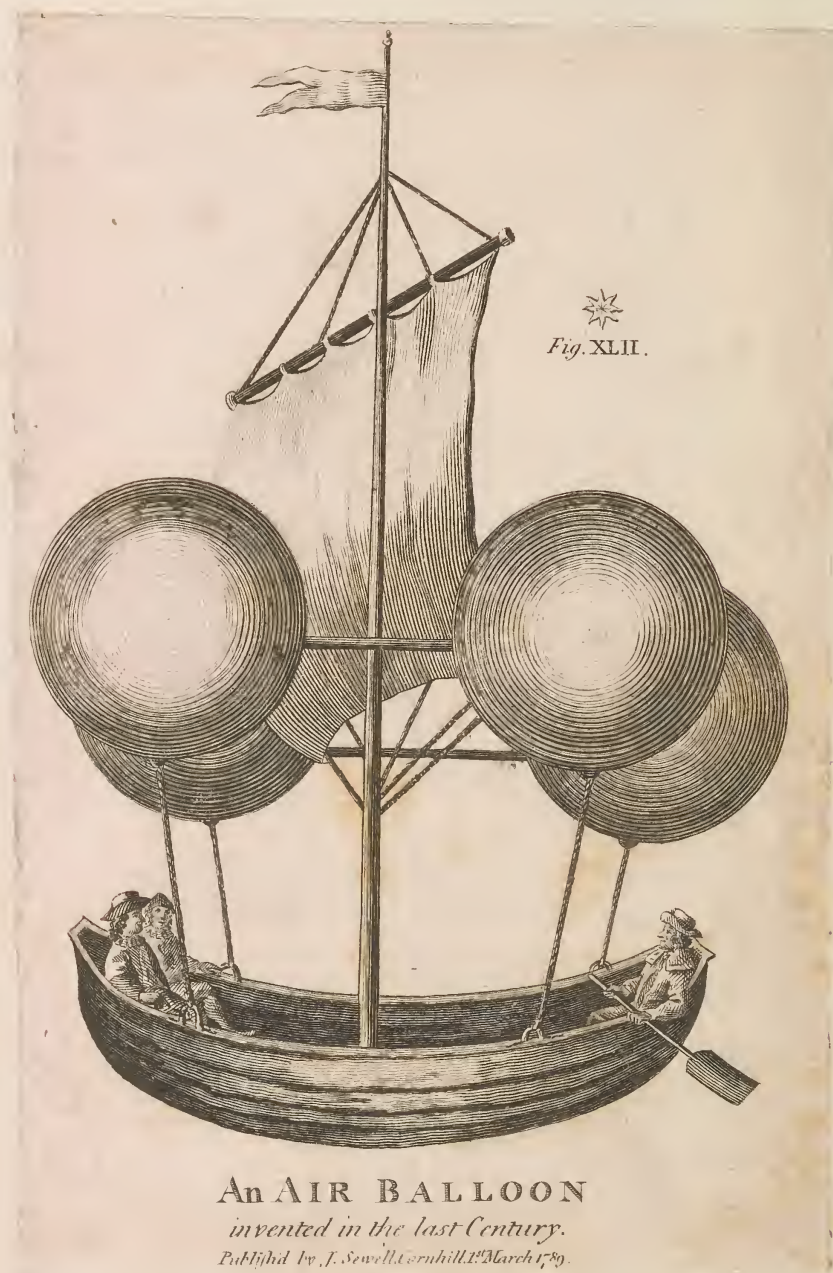
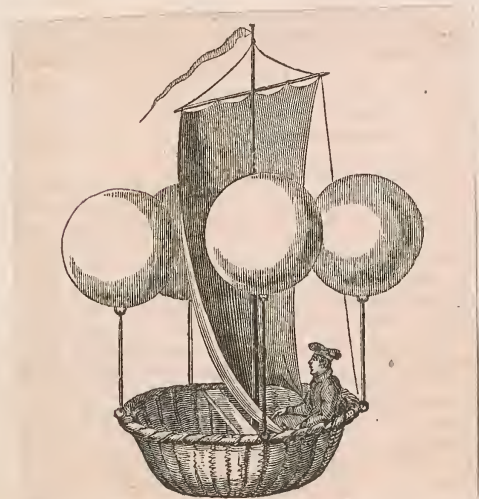
The different direction of the air, in proportion to its altitude, is an object which cannot but interest the attention of the curious and scientific. The degrees of heat and cold which it passes as it approximates, or recedes from the earth, with a great variety of other qualities which belong to that subtle fluid, may also be ascertained with precision by an indefatigable prosecution of these ærostatic researches.

It has long been an established idea, at least among the vulgar, that so strongly did the air act on the human frame, when raised to any considerable height, that the blood vessels were unable to resist the impulse, and consequently burst by the violence. Philosophers, affected by this apprehension, have refused to ascend mountains of any extraordinary altitude, as deeming it madness to attempt an experiment which they believed themselves certain of not surviving.

Our ærostatic expeditions which have yet been followed with no great or insurmountable inconvenience arising from a difference or extremity of temperature, express sufficiently the absurdity of this prepossession. For except the chilness perceived by the Roberts, and an accidental whirlwind in the course of a subsequent voyage, it does not appear that the lungs or circulation of the human blood are at all impeded or affected by any height to which adventurers have hitherto been able to ascend.

Over and above all these, who knows what advantages may be derived from air balloons by armies or fleets in the operations of war, in besieging towns, reconnoitering localities, detecting ambushes, taking distances, marking charts, discovering water, provender, and forage, for camps in an unknown country, not to mention the utilities it may afford to physics, navigation, and astronomy.

Though no one advantage were to bethe consequence of this discovery, which could entitle it to a place among the necessary, it would still have a claim to be classed among the elegant arts of life. For surely it unites the beautiful and grand in an uncommon degree. What more pleasing than to see the machine ascending and descending with a motion so easy, graceful, and charming. It brings to our ideas the remembrance of ancient times, when the inhabitants of the upper world visited and revisited ours.



AEROSTATION.



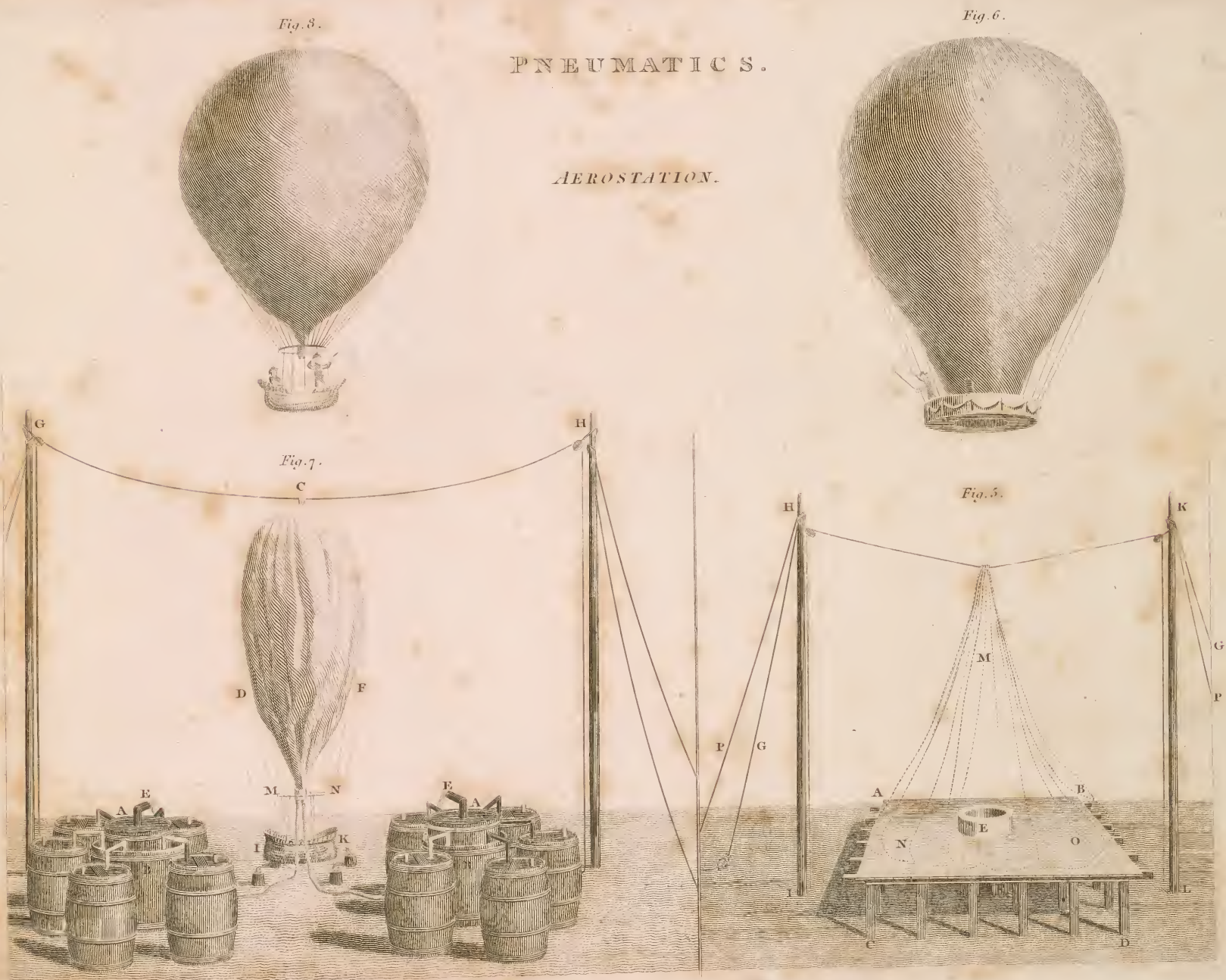
1. Montgolfier's Balloon. 2. Blanchard's. 3. Charles & Robert's. 4. Lunardi's.
5. Baldwin's View over the City of Chester, from Lunardi's Balloon.

Published as the Act directs, Jan'y 26, 1796, by J. W. Moore.

PLATE II.

PNEUMATICS.

AEROSTATION.



Published as the Act directs, Oct'r, 1803, by Longman & Rees, Paternoster Row.

Engraved by Wilson Lowry.

March 16
April 1839

BALLOONS IN 1648.

LETTER written from Warsaw, by a gentleman of that city, concerning a proposition made unto the king of Poland, about the rare invention of

FLYING IN THE AIR.*

Noble Sir,—Did I not know full how earnest you are after finding out of rare inventions, and other curious things worthy of a noble and heroic spirit, I should not be so ready to impart to you any thing that cometh to my knowledge worthy of your observation, and also knowing your many and great employments, yet do now make bold to represent unto you, the strangest and never heard of before invention of flying in the air, which I doubt not, will, for its curiosity, and fineness of conceit, be a matter of delight and pleasure unto those who are learned, especially who have studied the mathematics; and although this subject may be a matter of laughter, and be despised amongst them, being a rule among the vulgar, as not to believe any thing whatsoever, any further than they can apprehend the same, never considering what likelihood or probability there is for the effecting thereof. The thing is thus:—

There is at present in this court, a certain man come from Arabia, who is come hither to the King of Poland, to whom he proffereth his head for security of that which he propoundeth, which is, that he hath brought from that country the invention of a machine, being airy, and of a construction so light, nevertheless so sound and firm, that the same is able to bear two men, and hold them up in the air, and one of them shall be able to sleep, while the other maketh the machine to move, which thing is much after the same manner as you see represented in the old tapestry hangings, the dragons flying, whereof this same takes its name: I do give you them for pattern, or model of this invention, being a thing much in question, and to be doubted concerning these flying dragons, whether any be alive; likewise, it is questioned by many of the truth of there being any unicorns, griffins, phoenix, and many other like things, which by many wise understanding men, are deemed to have little or no reality in them, but all imaginary; nevertheless, we believe this upon the credit of

antiquity, and the report of many who know more. There are few in this court but have got a pattern of this machiner, and do hope to send you one likewise, in case this project takes some good effect, and proves to be as true, as rare in its invention. The forms of it which he hath made, and afterwards presented, with the many reasons he gives to maintain his proposition, seems to be so strong, and so likely to be true, that great hopes are conceived thereof; and although he undertakes the celerity or swiftness of this airy post shall be far beyond that of our ordinary posts, seeing he promises to go with the same in twenty-four hours, forty leagues of this his country, which will make of English miles, near two hundred and forty, a thing which seemeth so strange to many, that therefore they fall off from him, and so give little credit to it, although he hath brought with him good certificates how it hath been approved by many in other places, where he hath made experiment thereof, to his great honour and credit, and the admiration and amazement of the beholders; besides, it may well be thought, that a man of honour as he seems to be, would not set so little by his life, as to lay it at stake about a business of that nature, except he had some good ground first, and had some experimental knowledge of the same, seeing he must hazard his life, two several ways, the one in case he did not make trial of what he had promised, and to be proved to have come hither as an impostor, to have cheated this court, who upon discoveries of like businesses, will not make it a jest, or a thing of small moment; and the other time of danger is, when he begins to take his flight, which he is to do, above the highest towers or steeples that are, and without his dexterity and certain knowledge therein, would run into an utter ruin and destruction.

Whether it be true or no, there are commissioners appointed, who are to examine the business, and so according as they find it, to make their report, and he is appointed to make an essay, and show a piece of his skill in their presence, before he is to be suffered to act it publicly, that if in case his business doth not prove according to expectation, they who have given credit to it, and him, may not be exposed to open shame and derision, even as it happened once in the city of Paris, where a stranger having gathered near the Louvre many thousands of spectators, in whose sight, as a man void of sense and reason, having taken his flight from the top of the highest tower thereabouts, which is between the Louvre and the Seine, this miserable wretch fell to the ground, broke his neck, and his body torn in pieces.

Whilst every one is expecting the issue of this, there are many great wagers laid about it, yet take this by the way, there hath been

AEROSTATION.

UPON THE APPLICATION OF BALLOONS.

The subjoined extracts, from *Memoires sur les Aerostats*, par Meunier, Membre de l'Academie des Sciences, may amuse our readers who take an interest in aerostation. Dr. Franklin, on the appearance of the first balloons, observed that this new offspring of the sciences should be carefully watched in its infancy, in the expectation of deriving advantage from it in a state of maturity. It is looked upon at the present day with indifference, and considered only as an object of curiosity, reserved for the pomp of fêtes. That, however, was not the view taken when the first aerostatic experiments were made. The memoir of Meunier upon this subject was never printed, but Col. Coutelle, an old officer, who had the management of the military balloons during the Republican revolution of France, gave the public, in 1826, an analysis of it. A notice appeared in the *Revue Encyclopedique*, from which we extract the following remarks:—"Meunier, in his researches respecting balloons, proposed nothing less than to make these machines capable of accomplishing long and distant voyages; he therefore calculated the best means of making them strong enough to stand the shock of various currents which agitate the atmosphere. He projected the power of throwing out anchors, of rising to the elevation which might be necessary, of moving through the air in a tranquil state, and of modifying the direction and velocity of the machine. As the envelopes which formed balloons could not be made impenetrable to hydrogen, it became necessary to find the means of preserving the gas, and of supplying the deficiency occasioned by its escape. After finding satisfactory answers to his scientific inquiries, it remained to ascertain the form and dimensions of a balloon capable of transporting, in addition to its rigging, a crew for the necessary manœuvres, the navigators, and their instruments, and a quantity of provisions proportioned to the duration of a long navigation through regions in which nothing could be found for the support of the travellers. In short, he projected the construction of an air-balloon with the power required. This able mechanic overcame nearly all the difficulties in his way by the invention of a second envelope to his balloon. This addition procured him the means of resisting the violence of winds, the facility of mounting and descending, and of keeping at the desired elevation: in short, he avoided the loss of hydrogen gas, or rendered the effect of so little importance, that it might be neglected without inconvenience. These results, so important, were entirely dependent on the managers of the balloon.

"The hydrogen," says the author, "is contained in a balloon of silk, plastered with caoutchouc (gum elastic). This envelope must be as light as possible, and greater than the volume of gas it is to contain. The second envelope is also of silk more expansive than the balloon, and fortified upon the exterior by a net. It should be impenetrable to the compressed atmospheric air, because it is well known that

several great consultations made with the mathematicians, who have all declared, the putting it into operation is very difficult, but for the thing itself, do not count it impossible, and to this purpose, there was a true information brought of a prisoner, who having tied very fast about his collar, and under his arms, a long cloak, whereunto was made fast a hoop, to keep the spread out and round, casting himself from the top of a high tower, he thought to have fallen into a small river which ran at the foot thereof, but it happened otherwise, for he was carried on the further side of the water, safe and sound; the cloak which stood instead of a sail, did bear up the weight of his body, and so parted the air by degrees, that he had time to descend easily to the ground, without receiving any hurt by the fall.

Not to bring here the fabulous history of Dedalus, Archites Tarentin, the most famous artist of his time, made a wooden pigeon, which fled very high into the air; as also, at Nuremberg, at the great and magnificent reception made by that city unto Maximilian the emperor, an artificial eagle, although both of them were much heavier, and yet not so big as a child's bauble, these two things were raised into the air, being held only with a packthread; but another engineer had not so good success; for having raised himself into the air, by means of an engine, much like to this we speak of, the wires broke before he had raised himself so high as he intended, whereby he fell to the ground sooner than he was willing, and by the fall broke his thigh, and was in great danger of his life; yet by this, thus much may be gathered—the thing may possibly be done: moreover, experience daily shews us, nothing is impossible to man, but that through labour and industry, the most difficult things may at length be obtained; only in this point concerning the possibility, or impossibility of things, wise men do seem to be most slow in giving their opinion about it; there are also examples of birds, and those that swim, whereby we may judge by their swiftness, that the air may do the same operation upon other subjects, according as the artist can accommodate itself to it.

* The Moderate, a weekly newspaper; December 12—19, 1648; King's Pamphlets, vol. 401, in Museo.

1784

For the London Chronicle.

A HINT for the Improvement of the AIR BALLOON.

THIS aerostatic globe, by the laws of motion, being quite passive to every external action arising from the atmosphere, it must consequently be wafted, at all times, in the same direction, and nearly with the same velocity, as that of the element in which it floats. Hence it is manifest that, relatively to the wind, the balloon will always be in a state of rest, or in a dead calm; and hence, though we desire ever so much to steer a course different from the wind, any sort of rigging, after the manner of sails, must be unavailing. For in vain would we spread out silk or canvass to the breeze, whilst moving onward with equal speed, and when on that account no breath can overtake us.

In fine weather, when we ascend as a spectacle to the admiring world below, and when a bright sun and the gentle summer's breeze entice us to the eagle's flight, the action of oars or wings may indeed make the floating globe in some measure obedient to our will; but without some means of steering our course far more effectually, by which human art can dare the more formidable gale, and can acquire dominion over it to the ends of the earth, this new faculty of soaring in the atmosphere will fail to serve mankind in the point, of all others, the most important.

This is not said with any view of lessening the merit of an invention, which, though it should never be so perfected, may yet justly be deemed one of the most curious that modern times can boast of. No discovery has ever had a more rapid advancement, or a higher claim to the fostering care of philosophers. It is their province to explore every known principle, which promises a farther improvement of it, and which may eventually enlarge our powers in so eminent a degree.

Of all the expedients which the Writer of these observations has been able to imagine, the following is the only one which seems at all fitted to give us some government of the motion of a balloon.

It is well known, that at different elevations from the surface of the earth, the wind moves frequently, if not always, with different rates of velocity, and sometimes in different directions; instead, therefore, of one balloon, suppose that two, connected with a long tackle, and so loaded as to keep afunder, were raised in the air, it is evident, that when they came to be entangled with strata of air in unequal motion, the relative rest of both, in regard to the respective currents, would no longer take place, and that of course the wind would blow or all upon them. If the upper current, for example, were the quickest, the balloon then would be retarded by the one below, whilst this, in its turn, would be accelerated by the other above; thus the wind would overtake the higher balloon and meet the lower one. The breeze being brought in this manner into our service, it remains with philosophers so to meet it with oblique surfaces, as to enable the aerial navigators to shape their course side-ways, and gradually to wear towards the place of their destination. Two balloons, so depending upon one another, when involved in currents of air where both the velocity and direction are different, would afford still a greater scope for conspiring manœuvres in the way of sailing. Perhaps, even in the ordinary way of parading in the air, a parcel of smaller balloons, connected together, might be more safe and eligible than one of enormous size, upon which solely we have to depend.

As to the materials of which balloons may be constructed, perhaps it will be found that CAOUTCHOU, in substance, is the fittest that nature or art can afford. The vast elasticity of this wonderful resin, and its property of being pieced together with such perfect adhesion by

pressure alone, deserve to be well considered. Upon the banks of the Amazon, where it distills so plentifully from the tree, could not ways be fallen upon to form it into large sheets or gores, of sufficient thinness for the fabric of the balloon?

Glasgow, Sept. 27.

X.

March 16
April 1839

this fluid is confined with less difficulty than the hydrogen. It is plastered like the balloon, and capable of resisting the more weighty pressure of air. They leave between the two envelopes a space, for the use we shall describe. A tube made of the same sort of silk, is made to communicate from this envelope with a pump in the gondola or car. By the means of this pump, they can condense the air between the two envelopes, and diminish the volume of hydrogen, and also augment the specific gravity of the fluid in the balloon. Thus, when the aeronauts are at a great height, in order to descend they have only to work the pump. The atmospheric air introduced between the envelopes finds its way into the balloon, which, in that process, can only maintain its equilibrium in a denser atmosphere, and consequently it descends. By this process the gas is secured, which can only serve once if let out to descend. If they wish to rise again, they have only to open a valve and let out the atmospheric air detained between the two envelopes. To descend, they recommence the compression of air. To move horizontally in tranquil air, Meunier employed no other force than the arms of the crew. The author of the *Memoire* invented oars inclined like the sails of a windmill, fixed to an horizontal axis, which the crew turned. This mechanism procured but a slow movement, something less than a league an hour. It could be of little use unless it became the means of directing the balloon during its ascensional process into a current of air which would carry the aeronauts towards the point of destination. He had no project for carrying the balloon to the place of destination by the action of cars alone. We see in this attempt that the mechanist began his task upon the principles of geometry. His object was to give stability to the balloon, and make all the parts of the machine capable of meeting the difficulties it had to resist in moving through the air."

Monge, another mathematician, taking advantage of the means projected by Meunier, for mounting and descending with great rapidity, conceived the possibility of drawing from a vertical movement, that of horizontal translation. Meunier, like our countryman Green, employed only one balloon for transporting all his travellers. Monge divided them in no less than twenty-five small balloons, each retaining a spherical figure instead of the elliptical form chosen by Meunier. Monge attached his balloons one to the other, so that in mounting, they presented a flexible assemblage, susceptible of being developed in a right line or curve. This system of globes rising and descending, with the rapidity which the aeronauts calculated upon, would have imitated in the air the movement of the serpent or eel in the water. It is a subject of regret that this illustrious geometer did not try experiments founded upon his first ideas, and submit his plan to calculation.

The rest of Meunier's Memoir is devoted to details of execution and calculation of expenses, matters which do not excite the curiosity of the reader, but which, in fact, often cost the author more labour than all the rest of his plan. The balloons proposed by Meunier would have been expensive, but that might have been overlooked. They are dear articles at the present day, consequently in the first experiments for the establishment of an invention of high importance, a little expense could not be said to be useless. In some matters of public utility it may be necessary to shut our eyes and open our purses.

BALLOON TELEGRAPHS.

After the violent storms of the revolution had ceased, and learned men were no longer in dread of being dragged to the scaffold, they began to breathe; hope revived, and they saw an opening in the future. They calculated the time when France might be happy and free,

but liberty was only to be gained by victory. Europe in arms denied the French nation those rights which they claimed, and which belonged to the people. The organization of the army, providing for its wants, concerting operations, the establishment of safe and rapid correspondence, and, in short, all that could contribute to public safety, then occupied the mind of almost every Frenchman. Amongst other inventions, they proposed moveable telegraphic lines, and signals were stationed on points proper for the protection of the nation. Air balloons were considered the most effectual means of raising signals to an elevation at which they might be seen, notwithstanding the interposition of woods, and all the objects which intercept the view, in countries covered with high mountains; but they required persons to manœuvre, and make communications. The means employed, though simple, were perhaps not the best: they became useless in strong gales of wind, and by the failure of one signal post the whole telegraphic line was reduced to silence. The telegraph used on the occasion was composed of seven cylinders or light drums, formed by dark cloth, fastened to hoops. They were suspended by a triangle of wood, consequently, the hoops were horizontal, and the axis of the drum vertical. A block and line from each drum enabled men below to work the machine, and suffer it to ascend or haul it down. The combination of places occupied by these drums upon the telegraphic line, furnished more signals than they had occasion for. The triangle, the cylinders, blocks, and ropes, to hold the telegraph, in short, the whole weight of the machine, was supported by a balloon of small diameter, and it was moved from one position to another with the greatest facility.

The experiments made between Dammartin and Mendon succeeded very well. Long sentences were exchanged in less time than the same communications could be made by the telegraphs. Notwithstanding these advantages, air-balloon telegraphs were neglected under the government of Bonaparte, but there is ground to believe that the knowledge acquired by learned men who studied aerostation will not be lost; and that aeronauts will at no distant period re-invent many things which preceding generations knew very well.

BALLOONS IN 1648.

LETTER written from Warsaw, by a gentleman of that city, concerning a proposition made unto the king of Poland, about the rare invention of

FLYING IN THE AIR.*

Noble Sir,—Did I not know full how earnest you are after finding out of rare inventions, and other curious things worthy of a noble and heroic spirit, I should not be so ready to impart to you any thing that cometh to my knowledge worthy of your observation, and also knowing your many and great employments, yet do now make bold to represent unto you, the strangest and never heard of before invention of flying in the air, which I doubt not, will, for its curiosity, and fineness of conceit, be a matter of delight and pleasure unto those who are learned, especially who have studied the mathematics; and although this subject may be a matter of laughter, and be despised amongst them, being a rule among the vulgar, as not to believe any thing whatsoever, any further than they can apprehend the same, never considering what likelihood or probability there is for the effecting thereof. The thing is thus:—

There is at present in this court, a certain man come from Arabia, who is come hither to the King of Poland, to whom he proffereth his head for security of that which he propoundeth, which is, that he hath brought from that country the invention of a machine, being airy, and of a construction so light, nevertheless so sound and firm, that the same is able to bear two men, and hold them up in the air, and one of them shall be able to sleep, while the other maketh the machine to move, which thing is much after the same manner as you see represented in the old tapestry hangings, the dragons flying, whereof this same takes its name: I do give you them for pattern, or model of this invention, being a thing much in question, and to be doubted concerning these flying dragons, whether any be alive; likewise, it is questioned by many of the truth of there being any unicorns, griffins, phoenix, and many other like things, which by many wise understanding men, are deemed to have little or no reality in them, but all imaginary; nevertheless, we believe this upon the credit of

antiquity, and the report of many who know more. There are few in this court but have got a pattern of this machiner, and do hope to send you one likewise, in case this project takes some good effect, and proves to be as true, as rare in its invention. The forms of it which he hath made, and afterwards presented, with the many reasons he gives to maintain his proposition, seems to be so strong, and so likely to be true, that great hopes are conceived thereof; and although he undertakes the celerity or swiftness of this airy post shall be far beyond that of our ordinary posts, seeing he promises to go with the same in twenty-four hours, forty leagues of this his country, which will make of English miles, near two hundred and forty, a thing which seemeth so strange to many, that therefore they fall off from him, and so give little credit to it, although he hath brought with him good certificates how it hath been approved by many in other places, where he hath made experiment thereof, to his great honour and credit, and the admiration and amazement of the beholders; besides, it may well be thought, that a man of honour as he seems to be, would not set so little by his life, as to lay it at stake about a business of that nature, except he had some good ground first, and had some experimental knowledge of the same, seeing he must hazard his life, two several ways, the one in case he did not make trial of what he had promised, and to be proved to have come hither as an impostor, to have cheated this court, who upon discoveries of like businesses, will not make it a jest, or a thing of small moment; and the other time of danger is, when he begins to take his flight, which he is to do, above the highest towers or steeples that are, and without his dexterity and certain knowledge therein, would run into an utter ruin and destruction.

Whether it be true or no, there are commissioners appointed, who are to examine the business, and so according as they find it, to make their report, and he is appointed to make an essay, and show a piece of his skill in their presence, before he is to be suffered to act it publicly, that if in case his business doth not prove according to expectation, they who have given credit to it, and him, may not be exposed to open shame and derision, even as it happened once in the city of Paris, where a stranger having gathered near the Louvre many thousands of spectators, in whose sight, as a man void of sense and reason, having taken his flight from the top of the highest tower thereabouts, which is between the Louvre and the Seine, this miserable wretch fell to the ground, broke his neck, and his body torn in pieces.

Whilst every one is expecting the issue of this, there are many great wagers laid about it, yet take this by the way, there hath been

several great consultations made with the mathematicians, who have all declared, the putting it into operation is very difficult, but for the thing itself, do not count it impossible, and to this purpose, there was a true information brought of a prisoner, who having tied very fast about his collar, and under his arms, a long cloak, whereunto was made fast a hoop, to keep the spread out and round, casting himself from the top of a high tower, he thought to have fallen into a small river which ran at the foot thereof, but it happened otherwise, for he was carried on the further side of the water, safe and sound; the cloak which stood instead of a sail, did bear up the weight of his body, and so parted the air by degrees, that he had time to descend easily to the ground, without receiving any hurt by the fall.

Not to bring here the fabulous history of Dedalus, Archites Tarentin, the most famous artist of his time, made a wooden pigeon, which fled very high into the air; as also, at Nuremberg, at the great and magnificent reception made by that city unto Maximilian the emperor, an artificial eagle, although both of them were much heavier, and yet not so big as a child's bauble, these two things were raised into the air, being held only with a packthread; but another engineer had not so good success; for having raised himself into the air, by means of an engine, much like to this we speak of, the wires broke before he had raised himself so high as he intended, whereby he fell to the ground sooner than he was willing, and by the fall broke his thigh, and was in great danger of his life; yet by this, thus much may be gathered—the thing may possibly be done: moreover, experience daily shews us, nothing is impossible to man, but that through labour and industry, the most difficult things may at length be obtained; only in this point concerning the possibility, or impossibility of things, wise men do seem to be most slow in giving their opinion about it; there are also examples of birds, and those that swim, whereby we may judge by their swiftness, that the air may do the same operation upon other subjects, according as the artist can accommodate itself to it.

* The Moderato, a weekly newspaper; December 12—19, 1648; King's Pamphlets, vol. 401, in Museo.

1784 For the London Chronicle.

A HINT for the Improvement of the AIR BALLOON.

THIS aerostatic globe, by the laws of motion, being quite passive to every external action arising from the atmosphere, it must consequently be wafted, at all times, in the same direction, and nearly with the same velocity, as that of the element in which it floats. Hence it is manifest that, relatively to the wind, the balloon will always be in a state of rest, or in a dead calm; and hence, though we desire ever so much to steer a course different from the wind, any fort of rigging, after the manner of sails, must be unavailing. For in vain would we spread out silk or canvass to the breeze, whilst moving onward with equal speed, and when on that account no breath can overtake us.

In fine weather, when we ascend as a spectacle to the admiring world below, and when a bright sun and the gentle summer's breeze entice us to the eagle's flight, the action of oars or wings may indeed make the floating globe in some measure obedient to our will; but without some means of steering our course far more effectually, by which human art can dare the more formidable gale, and can acquire dominion over it to the ends of the earth, this new faculty of soaring in the atmosphere will fail to serve mankind in the point, of all others, the most important.

This is not said with any view of lessening the merit of an invention, which, though it should never be so perfected, may yet justly be deemed one of the most curious that modern times can boast of. No discovery has ever had a more rapid advancement, or a higher claim to the fostering care of philosophers. It is their province to explore every known principle, which promises a farther improvement of it, and which may eventually enlarge our powers in so eminent a degree.

Of all the expedients which the Writer of these observations has been able to imagine, the following is the only one which seems at all fitted to give us some government of the motion of a balloon.

It is well known, that at different elevations from the surface of the earth, the wind moves frequently, if not always, with different rates of velocity, and sometimes in different directions; instead, therefore, of one balloon, suppose that two, connected with a long tackle, and so loaded as to keep afloat, were raised in the air, it is evident, that when they came to be entangled with strata of air in unequal motion, the relative rest of both, in regard to the respective currents, would no longer take place, and that of course the wind would blow or act upon them. If the upper current, for example, were the quickest, the balloon then would be retarded by the one below, whilst this, in its turn, would be accelerated by the other above; thus the wind would overtake the higher balloon and meet the lower one. The breeze being brought in this manner into our service, it remains with philosophers to meet it with oblique surfaces, as to enable the aerial navigators to shape their course side-ways, and gradually to wear towards the place of their destination. Two balloons, so depending upon one another, when involved in currents of air where both the velocity and direction are different, would afford still a greater scope for conspiring manœuvres in the way of sailing. Perhaps, even in the ordinary way of parading in the air, a parcel of smaller balloons, connected together, might be more safe and eligible than one of enormous size, upon which solely we have to depend.

As to the materials of which balloons may be constructed, perhaps it will be found that CAOUTCHU, in substance, is the fittest that nature or art can afford. The vast elasticity of this wonderful resin, and its property of being pieced together with such perfect adhesion by

pressure alone, deserve to be well considered. Upon the banks of the Amazon, where it distills so plentifully from the tree, could not ways be fallen upon to form it into large sheets or gores, of sufficient thinness for the fabric of the balloon?

Glasgow, Sept. 27.

From TUESDAY, OCTOBER 19, to THURSDAY, OCTOBER 21, 1784.

To the PRINTER of the LONDON CHRONICLE.
SIR,

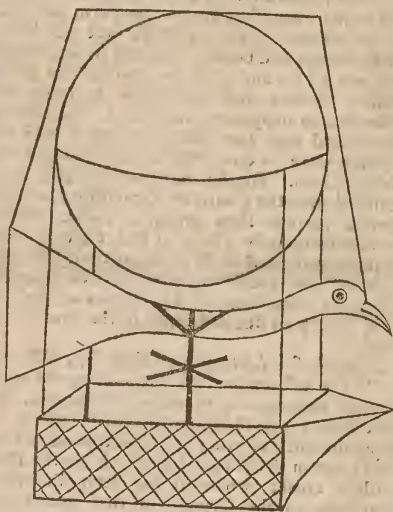
S balloons are now the current subject of discussion, give me leave to enter a little into the merits of them; for all that has hitherto been done, amounts to no more than meer holiday pastime! They are driven wherever the wind lifts. Mr. Lunardi, who I believe hoped to return to the Artillery-ground, was landed at Ware; and Mr. Blanchard, at Rumsey in Hampshire: of course, nothing has been effected, but to enable particular men to boast that they have been up with a balloon; and to furnish idle people with exhibitions, raree-shews, and ridiculous processions! Mr. Blanchard in his advertisement fixed an early hour for setting off; adding that he should be punctual to his time, because, after certain manœuvres, he proposed to go as far as the length of the day would allow. These manœuvres, by report, were to make a complete circuit round the metropolis; which would have distinguished him as the first governor of the machine. But when the hour came, and the balloon rose, no manœuvre whatever was performed but by the wind, which, without the least ceremony, carried off this bold rival in a direct steady course into Hampshire!

One trial would shew as plainly as five hundred, that there is a kind of elastic air, so much specifically lighter than atmospheric air, that heavy bodies may be carried off the ground by the difference between their respective gravities; but this knowledge as yet, is absolutely barren, notwithstanding all the pompous relations we have received of aerial voyages performed abroad; and all that we have seen at home. Let us not then lavish any more money in brewing this noxious fluid; nor wantonly injure the Public, by every now and then depriving them of a day's labour of 100,000 working people, and ruining all the cultivated grounds in the neighbourhood of the exhibition; before we have, by mature theory, endeavoured to render the discovery subservient to some useful purpose. I will only add, that your Correspondent X, p. 333, where he says, "perhaps, even in the ordinary way of parading in the air, a parcel of smaller balloons, connected together, might be more safe and eligible, than one of enormous size, upon which solely we have to depend;" does not appear to advert to a circumstance, nevertheless sufficiently obvious, which is, that an equal quantity of inflammable air in one balloon, will perhaps raise four or ten times the weight it would if the containing materials were multiplied.

To stimulate more able heads than mine to the task of improvement, is the object of the present letter; in hopes that, by throwing out a few cursory hints, even my mistakes may be of use, by leading to more correct principles.

I apprehend a bird is the model we ought to aim at as nearly as possible, in constructing the apparatus to govern a balloon. If we examine the figure of a bird in the act of flying, we shall find his wings, the sustaining power, very large in proportion to his body: If we examine a balloon, with such wings as we have hitherto seen, we shall find

this proportion inverted! A balloon will indeed float without wings; but this advantage is much more than merely lost, when we attempt to give an additional weight to the balloon, and direct its course by wings; owing to the vast size of the body opposed to the resistance of the air, which must be powerfully counteracted by those wings. It must also have a rudder corresponding with the tail of a bird; and whoever has noted the flight of large birds, will perhaps conceive the head and neck of a bird to be no less useful in directing its course before, than the tail behind. When art therefore is employed to imitate nature in like circumstances, no advantage whatever is to be overlooked. A loose scheme of what I mean, may greatly assist the Reader in conceiving my ideas, save a multitude of words, and facilitate his own reflections.



In the above rude outline, I suppose a rudder made of silk or canvas, stretched in a light wooden frame, under the balloon, to be continued across, and projecting before, like the head and neck of a bird, balanced by a lath at the top, but sustained and made to be turned easily below. The floating balloon will, I am persuaded, conform to the central direction given to it, and the wings will then work according to the desired course. But as the tails of most birds are flat, and lie horizontally, it may deserve consideration, whether the rudder, where it expands behind, should not lie horizontally also; and whether a power of raising or depressing it vertically, would not influence the course of the balloon in rising or sinking? Or whether, as I proceed on the supposition of two navigators, one to work the wings, and another to act as steersman, this purpose may not be more readily accomplished by the gallery being lengthened like a boat? The steersman in that case, by removing himself fore or aft, might by his weight raise or depress the head of the machine, and thus dispose it to soar, move level, or incline downward. A pair of large wings framed with whalebone (which there is not room to add to the figure) should be fixed strongly in an horizontal position to the sides of the gallery, and be worked by a windlass within. When the tips of the wings are brought down by a cord, to a

proper degree of depression, the cord being let slip, the wings will spring back to their horizontal extension: a mechanical head will easily apprehend my meaning, without my labouring at minute explanation. Thus, by the help of a rudder, I conceive the possibility of steering a direct course, of turning that course into another direction, or of making a circular sweep like a pigeon; and by elevating or depressing the head or front of the gallery, of soaring or tending toward the earth, without carrying a load of ballast to be parted with, or unnecessarily diminishing the more valuable contents of the balloon. If these loose thoughts should be convertible to any practical use, my purpose will be answered; for until some actual improvement is attempted, going up with balloons is meer philosophical trifling, and ought always to be met by Englishmen with the interrogation CUI BONO?



PLAN for directing an AIR-BALLOON.

In order to give a horizontal direction to an Air Balloon, it seems absolutely necessary that some force should be found, which may act on the Balloon in the same plane with the wind; and from reflecting on this necessity, the thought occurred of applying to this purpose the repulsive force of gunpowder. That it should be adequate to the desired effect, can scarcely be doubted by any body, who considers the violence with which a cannon recoils, or the rapidity with which a sky-rocket mounts in so short a time to so prodigious a height. The velocity of the rocket's flight, and the weight of the cannon, shew this force to be immense. What then should be its effect on a Balloon, which, notwithstanding all the absolute weight of its appendages, being still relatively lighter than a feather in the air, would not oppose any the least weight whatever to be overcome? It may be said, perhaps, that it would be dangerous in the application; but besides that the Balloon might be easily fortified against all risque, it must be recollected that this force being repulsive, would be constantly and rapidly driving the Balloon from the sparks, and out of the reach of danger. In order to procure a constant succession of force, one might avail oneself of an imitation of either of the machines below-described.

There is in the arsenal at Brussels the model (or perhaps it may be the original) of a piece of artillery, which belonged formerly to the Emperor Charles V. It consists of one solid piece, but has seven touch-holes, and as many bores, which are so contrived that you may discharge each separately, at what intervals you please, or, by applying the match at one particular touch hole, let them off all together.

The other piece was invented in the time of Lewis the Fourteenth, for the purpose of bombarding St. Maloes, and the model of it is now shewn at the Palais Royal at Paris. It consists of a considerable number of cannon, (as well as bombs) which diverge from a point in which all their butts meet: the match being once applied, they all go off in succession, and by means of the machinery on which they are placed, each cannon, before it is discharged, is brought into the direction of the one which preceded it.

It is now more than a year since this thought was first conceived, and it has been communicated from time to time to a few individuals only; but as yet it has never yet been tried.

[Price Threepence.]

1784.

For the London Chronicle.

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Whilst there is no wind, oars may be employed to some advantage; but as they bear no proportion to the size of the Balloon, they can have as little power over it, as a small boat dragging through the water a large ship; and as every thing respecting the two elements are analogous, it must appear a thing impossible for a Balloon to move against a current of air, going at the rate of 20 miles in the hour. Oars may, however, be employed in raising or lowering a Balloon; for, as it floats nearly upon an equilibrium, little force is required to raise or depress it. The power most effectual to steer the Balloon in any direction, would be to make use of wings; but these, it is to be apprehended, cannot be employed upon a great scale, without using such machinery as will be found too weighty for a balloon to take up. However, though an acrostatic machine cannot be employed as a vehicle for travelling through the air, yet it is probable it may be found useful in extending science. Great light, perhaps, may be thrown upon that sublime part of physics, the doctrine of attraction, by a strict attention at different heights in the atmosphere, to the barometer, and the oscillations of the pendulum, and the cause of the various phenomena in the upper regions, it is probable, will be explained upon more clear principles than has yet been offered.

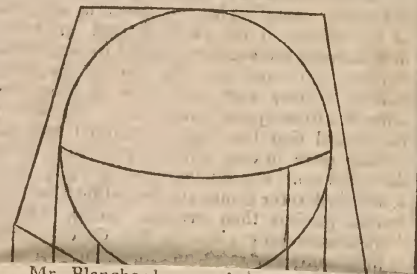
From TUESDAY, OCTOBER 19, to THURSDAY, OCTOBER 21, 1784.

To the PRINTER of the LONDON CHRONICLE.

SIR,

AS balloons are now the current subject of discussion, give me leave to enter a little into the merits of them; for all that has hitherto been done, amounts to no more than meer holiday pastime! They are driven wherever the wind lifts. Mr. Lunardi, who I believe hoped to return to the Artillery-ground, was landed at Ware; and Mr. Blanchard, at Rumsey in Hampshire: of course, nothing has been effected, but to enable particular men to boast that they have been up with a balloon; and to furnish idle people with exhibitions, raree-shews, and ridiculous processions! Mr. Blanchard in his advertisement fixed an early hour for setting off; adding that he should be punctual to his time, because, after certain manœuvres, he proposed to go as far as the length of the day would allow. These manœuvres, by report, were to make a complete circuit round the metropolis; which would have distinguished him as the first governor of the machine. But when the hour came, and the balloon rose, no manœuvre whatever was performed but by the wind, which, without the least ceremony, carried off this bold rival in a direct steady course into

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Mr. Blanchard came down in Lord Palmerstone's park; his Lordship was absent, and he was elegantly entertained by the Rev. Mr. Penton, brother to Mr. Penton the Member. They made their first descent near Sunbury on perceiving that they lost their air, which they discovered by finding that a bit of silk which they threw out ascended instead of sinking. When at their highest elevation Mr. Blanchard dispatched a pigeon with a message; the bird flew out, but the medium of the air was too thin and light to support its weight, and the animal fluttered in great pain, and with great labour and difficulty made its way back to the vessel, and thrunk under the seat where Mr. Sheldon had sat. But when the machine came near the earth, the pigeon, when again thrown out, darted along, and brought the message to Oxford-street all the way from Hampshire. His Majesty had sent a message to Mr. Blanchard, the morning of the experiment, to express his desire that he might if possible direct his flight towards Windsor. Mr. Blanchard, with the gallantry of a Frenchman, was exceedingly desirous to obey the Monarch, and when he came over Winchester he conceived that the Castle could be no other than that of Windsor, the residence of the Monarch, and he wrote a letter, which he fastened to a bladder, and sent down, directed—*Au Monsieur le Roi*. It was in so highly a rarified atmosphere that the bladder burst and made a loud report.—At their highest elevation the wind made no sound whatever. At Rumsey Mr. Blanchard saw himself very near the sea, and the new forest just before him, which induced him to come down where he did; but he was very much distressed from not being understood by the people who came up to him, and he was on the eve of launching himself again into the air.

proper degree of depression, the cord being let slip, the wings will spring back to their horizontal extension: a mechanical head will easily apprehend my meaning, without my labouring at minute explanation. Thus, by the help of a rudder, I conceive the possibility of steering a direct course, of turning that course into another direction, or of making a circular sweep like a pigeon; and by elevating or depressing the head or front of the gallery, of soaring or tending toward the earth, without carrying a load of ballast to be parted with, or unnecessarily diminishing the more valuable contents of the balloon. If these loose thoughts should be convertible to any practical use, my purpose will be answered; for until some actual improvement is attempted, going up with balloons is meer philosophical trifling, and ought always to be met by Englishmen with the interrogation CUI BONO?

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6 Baloon. Baloon.



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1784.

For the London Chronicle.

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Whilst there is no wind, oars may be employed to some advantage; but as they bear no proportion to the size of the Balloon, they can have as little power over it, as a small boat dragging through the water a large ship; and as every thing respecting the two elements are analogous, it must appear a thing impossible for a Balloon to move against a current of air, going at the rate of 20 miles in the hour. Oars may, however, be employed in raising or lowering a Balloon; for, as it floats nearly upon an equilibrium, little force is required to raise or depress it. The power most effectual to steer the Balloon in any direction, would be to make use of wings; but these, it is to be apprehended, cannot be employed upon a great scale, without using such machinery as will be found too weighty for a balloon to take up. However, though an aerostatical machine cannot be employed as a vehicle for travelling through the air, yet it is probable it may be found useful in extending science. Great light, perhaps, may be thrown upon that sublime part of physics, the doctrine of attraction, by a strict attention at different heights in the atmosphere, to the barometer, and the oscillations of the pendulum, and the cause of the various phenomena in the upper regions, it is probable, will be explained upon more clear principles than has yet been offered.

Sup. 1783.

AIR BALLOONS.

THERE is nothing new under the sun, not even *air balloons*: above four-score years ago, a Frenchman, of the name of *Voiture*, (but not the celebrated writer) and of some family, had committed many outrageous actions, for which he had received the king's pardon; but having in a fit of passion shot his coachman, as he was returning from a journey; all his interest could not procure forgiveness for the murder, and he made his escape to Brussels. Voiture there became acquainted with a very inventive genius of a philosopher, who promised to obtain the king's mercy, provided Voiture would go to his majesty at St. Germain, in a machine, which he, (the philosopher) had contrived; and assured him, that the king seeing him travel with so extraordinary an equipage, would certainly grant his request.

Infatuated with this romantic idea, and the hope of pardon, Voiture consented: the philosopher and he shut themselves up in a garret, till the *aerostatical* machine was constructed; the globe was filled with a very light or inflammable air, with an appendage to it, not unlike the tail of a kite, where Voiture was placed, to direct it through the atmosphere; the air, it was pretended would sustain it;

and by the means of the wind, and the assistance of the rudder, it was to go wherever its conductor pleased.

When this new *offspring of folly* was finished, Voiture took leave of his friends, and made a breach in the side of the garret, through which it was to be launched: but just as he was on the point of setting forth into the open air, he bethought himself, that the globe was too light, and the wind would carry it too high into the air, he therefore filled his pockets with a considerable quantity of lead, and then took his place in the *siccrage*.

At the moment of his out-set, a breeze of wind sprung up, which conveyed the *balloon* to the distance of almost an hundred yards, when suddenly burbling, Voiture was set free, and had a precipitate descent upon the house of the Count de Dilles.

The Countess de Dilles was a very ancient lady, who kept a beautiful *grifette*, in quality of *fille de chambre*, but who likewise served the Count, a very amorous nobleman, in another capacity. The Count and the *filie de chambre* were at this minute in each other's arms.

The velocity of Voiture's downward flight, carried him entirely through the roof of the house, and placed him alight on the back of the Count.

Q q q

For the MORNING HERALD.

MR. EDITOR,

Dec: 1784

TO improve the art of travelling in various regions of the atmosphere, is at present the occupation of a number of ingenious persons in several counties of Europe, and the journals of aerial voyagers, which are the experiments made with the view of cultivating this art, or of exciting the admiration of mankind, are the favorite subjects of reading and conversation. A method of obtaining inflammable gas at a small expence, is a great desideratum in the *Aerostatic* art. I beg leave then to acquaint your readers with the following easy and cheap manner of procuring this substance. It was discovered by Lavoisier, while he was attempting to change water into inflammable gas and dephlogisticated air; and, again, inflammable gas and dephlogisticated air into water.

Take a very strong, thick tube of iron, the bore of which is of a moderate width; put therein a quantity of iron turnings, so as to nearly fill it: expose it to heat, till it is white hot; then join to it another tube, and pour water into the heated tube (but not in such quantity as to cool it considerably) upon which an inflammable steam, with vapour, will be found to issue through the cold tube, which burns upon approaching a lighted candle near the end of it. This vapour may be easily collected, for the purpose of filling balloons, &c.

Dec. 10, 1784.

L. M. N.

AEROSTATION.

OUR Readers may wish, in the present rage for balloons, to have a short and accurate account of the different aerostatic voyages which have been made since Mr. Montgolfier's discovery. We are enabled, through the intelligence of M. de la Lande, the valuable Editor of the *Journal des Sçavans*, to present them with the following correct catalogue:

1st Experiment. 21st November 1783, the Marquis d'Arlandes† and M. Pilatre de Rozier ascended in a Montgolfier, or balloon filled with rarefied air, from the Muette, at 54 minutes past one o'clock, and their voyage lasted from 20 to 25 minutes.

2d. The first aerostat filled with inflammable air ascended from the Thuilleries on the 1st of December 1783, at 40 minutes past one, and the ingenious discoverers, as well as adventurers, were, Messrs. Charles and Robert.

Their voyage lasted two hours and five minutes. The same day M. Charles mounted alone, and continued aloft 35 minutes.

3d. The grand Montgolfier of Lyons was elevated at Lyons on the 19th of January 1784; and the travellers were Mess. Joseph Montgolfier, Pilatre de Rozier, the Comte de Lau-raucin, the Comte de Dampiere, the Prince de Ligne, the Comte de la Porte, and M. Fontaine. The immense machine took fire, but they descended without injury in about 15 minutes.

4th. At Milan, on the 25th of February, the Comte Andreani, Mess. Augustin Gerli, and Ch. Jos. Gerli, ascended, and continued in the air about 20 minutes.

5th. Mr. Blanchard made his first experiment, and ascended from the Champ de Mars, near Paris, on the 2d of March, at half past 12 o'clock, and continued an hour and 15 minutes in his voyage.

6th. On the 13th of March the Comte Andreani and two companions, ascended again at Milan, to the height of 850 toises, and travelled seven miles.

7th. At Dijon, on the 25th of April, Mess. de Morveau and Bertrand ascended at 48 minutes past four, and were one hour and 37 minutes in the air.

8th. At Marfeilles, on the 8th of May, Mess. Bonin and Maret were elevated in an aerostat fifty feet in diameter, named le Marfeillois; they were only seven minutes in the air, and travelled a mile and a half.

9th. At Strasbourg, on the 15th of May, a balloon was raised with two persons; but the voyage did not succeed.

10th. At Rouen, on the 23d of May, M. Blanchard made his second voyage; he travelled one hour.

11th. At Marfeilles, on the 29th of May, Mess. Maret and Bremond went up again in the Marfeillois. It went rather higher than before, but it took fire, and they escaped with great difficulty.

12th. At Lyons, on the 4th of June, in the presence of the King of Sweden, M. Fleurant and Madame Tible ascended in a Montgolfier seventy feet in diameter. This was the first lady who ascended. Their journey lasted forty-five minutes, and they travelled about two miles.

13th. In Spain, on the 5th of June, M. Bouche, a young French painter, ascended in a Montgolfier made by order of the Infant Don Gabriel. It took fire, and he escaped with great difficulty.

14th. At Dijon, on the 12th of June, Monf. de Morveau and de Virly ascended, and made a voyage of one hour and two minutes.

15th. The Suffrein was raised from the Orphan-house at Nantes, on the 13th of June, at

† The Marquis d'Arlandes, one of the two first persons who ever adventured in a balloon to the upper regions of the atmosphere, was broke in the course of the late war on a charge of cowardice.

ten minutes past six o'clock; the travellers were Mess. Coustard, de Maffi, and Mouchet. They were fifty-eight minutes.

16th. At Bourdeaux, on the 16th of June, Mess. Darbelet, des Granges, and Chalfour, ascended, and were up one hour and fourteen minutes.

17th. A grand Montgolfier was elevated at Versailles on the 23d of June, at forty-five minutes past four o'clock. The voyagers were Mess. Pilatre de Rozier and Proust. They were up forty-seven minutes.

It may be mentioned in this recital, that on the 11th of July, Messrs. Miollan and Janinet failed in their public experiment, though on a previous trial their machine had elevated nine persons with 700 pounds of ballast.

18th. The Mess. Roberts, and the Duke de Chartres, ascended from St. Cloud on the 15th of July, and their continued about forty-five minutes.

19th. Mess. Blanchard and Boby ascended at Rouen on the 18th of July, and were up two hours and fifty-five minutes.

20th. The same Gentlemen ascended at Bourdeaux on the 26th of July, and traversed the Garonne, and the Dordogne.

21st. On the 6th of August, Mess. Carny and Louchet ascended from Rhodes, and were up thirty-five minutes.

22d. On the 6th of September the Suffrein ascended again from the Orphan-house at Nantes. Mess. Coustard, de Maffi, and Delaynes, were the voyagers. It was up two hours and thirty-two minutes.

23d. At London, on the 15th of September, Mr. Lunadi, an Italian, ascended, and continued in the atmosphere three hours and 20 minutes, in which time he travelled 25 miles.

24th. The brothers Robert, and M. Hulin, ascended at Paris on the 19th of Sept. from the Thuilleries, and in six hours and 40 minutes travelled 150 miles, which is as yet the longest journey performed by aerostation, and in every particular the most complete.

Thus far we have from M. de la Lande; but there are to be added one or two to the above which have taken place since the date of his Journal.

There is some doubt whether Mr. Sadlier ascended at Oxford on the 4th of October; it being asserted pretty roundly, that he was neither seen in his ascent or descent.

25th. Mess. Blanchard and Sheldon ascended at Chelsea, near London, on the 16th of Oct. at eight minutes past 12; Mr. Sheldon alighted at Sunbury, and Mr. Blanchard continued his voyage to Rumsey, distance 73 miles from London, which he performed in less than four hours.

Mr. Carnet also raised himself at Philadelphia in a balloon; but the voyage was short, owing to its catching fire*.

* From this, and every one of the experiments which have been made with the Montgolfier, or balloon inflated with rarefied air, it is evident, that for purposes of use they can never be depended on. They are so subject to accidents, and at the same time so unwieldy, that they will hardly be used, except of a small size for entertainment.

HERE is nothing new under the sun, nor even air balloons: above four-hundred years ago, a Frenchman, of the name of *Voiture*, (but family, not name) had performed the same actions, for which he had received the king's pardon, or at having in his pardon for his coachman, as he was returning from a journey; all his interest could not procure for him the king's pardon, and he made his escape to Brussels. *Voiture* there became acquainted with a very interesting genius of a philosopher, who promised to obtain the king's mercy, provided at St. Germain, in a machine, which he, (the philosopher) had contrived; and had allowed him, that the king might have a trial with him, extraordinary as equisage, would certainly buy his pardon, and thereby.

Marriage Ceremony

Count, who was *actually* in one of those critical moments so feelingly mentioned by Dr. Graham. Whether the action of Voiture gave energy to the *stroke*, we are really unable to determine.

The Count was enraged, and Voiture not less so, though from different causes; the Count threatened to have Voiture apprehended as a thief; while he promised to discover the *tete-a-tete* to the Countess, and the world. The business was therefore settled without the interference of judicial authority.

The whim of aerial expeditions has since (probably from the foregoing adventure) been refused by Dr. Priestly, in some of his multitudinous writings, and carried into practice by the French, and probably when the lives of half a dozen wretches have been sacrificed to this new play-thing, the bubble will burst, and sink into annihilation.

Marriage Ceremony

For the MORNING HERALD.
Dec. 17, 1844.

VEROSTATION.

AEROSTATION.
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Their voyage lasted two hours and five minutes. The same day M. Charles mounted alone, and continued about 35 minutes. The grand Montgolfier of Lyons was elevated at Lyons on the 19th of January 1784; and the travellers were M. Joseph Mongolfier, the Comte de Rozier, the Comte de Launac, the Comte de Dampierre, the Prince de Ligne, the Comte de la Porte, and M. Fontaine. The immense machine took fire, but they descended without injury about 15 minutes. The immense machine took fire, and they descended without injury about 15 minutes. On the 6th of September the soufflé ascended from Rhodes, and were

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great difficulty. It took her, and she escaped with Gabriel. The Marquis d'Arlandes, one of the two first persons who ever adventured in a balloon to the upper regions of the atmosphere, was broke in to the count of the late war on a charge of cowardice.

ORIGIN OF BALLOONS.

A desire to fly has prevailed in all ages, and most children have a wish to imitate the birds. ROGER BACON, born at Ilchester, in Somersetshire, in the beginning of the 13th century, was the first that is known to have conceived the idea of rising in the air, supported by exhausted balls of thin copper. He was ignorant of the existence of light air, endowed with as great an elastic force as common air, and therefore, though his example of light balls was the same as that on which balloons are now made, it was impracticable: but we find that Dr. BLACK, of Edinburgh, is the first person who is known to have suggested the possibility of enclosing inflammable air so as to render it capable of raising a vessel into the atmosphere, which was done in his lectures in 1767 and 1768; and Mr. CAVALLI, in 1782, first made experiments upon the subject, but he was unable to retain the air in any material light enough for the purpose, except a thick solution of soap, which the practice of children had shewn would ascend even with respired air rarefied by heat. In the same year, STEPHEN and JOHN MONTGOLFIER, Paper Manufacturers, of Annonay, about ten leagues from Lyons, filled a silken bag rarefied by burning paper, which rose, first in a room, and afterwards, to the height of 70 feet, in the open air. Several repetitions of the experiment were made, in the ensuing year, and finally, dry straw and chopped wool were consumed instead of paper. One of their balloons, about 13 feet in diameter, rose to the height of 3000 feet in two minutes.

At length, on the 15th of October, 1783, M. PILATRE DE ROZIERE rose from the garden of the Faubourg St. Antoine at Paris, in a wicker gallery about three feet broad, attached to an oval balloon of 74 feet by 48, which had been made by MONTGOLFIER, and which also carried up a brazier, or grate, for the purpose of continuing at pleasure the inflation of the Balloon by a fire of straw and wool. The weight of this machine was 1600 pounds. On that day it was permitted to rise no higher than 84 feet, but on the 19th, when M. GIRAUD DE VILLETTRE ascended with him, they rose to the height of 332 feet, being prevented from farther ascent only by ropes. In November of the same year, M. P. DE ROZIERE and the Marquis D'ARLANDES first trusted a Balloon to the elements, who, after rising to the height of 3000 feet, descended about five miles from the place of their ascent.

About the same time, Count ZAMBECARI sent up from the Artillery Ground, in London, a small gilt Balloon, filled with inflammable air, which in two hours and a half reached a spot near Petworth, in Sussex, and would not then have fallen had it not burst. The discovery was now nearly as complete as in its present state. Inflammable air, produced by iron filings and vitriolic acid, was soon used in the inflation of larger balloons, and by one of 27½ feet in diameter, M. CHARLES and M. ROBERTS rose in December from the garden of the Thuilleries in Paris, and in an hour and a half descended 27 miles from that city. In this voyage, the thermometer fell from 47 to 31, from which *datum* the Balloon was supposed to have reached the height of 3500 feet.—Subsequent experiments may rather be enumerated than described. The adventurers in them were—

- M. J. Montgolfier, who, in 1784, ascended, with six other persons, from Lyons, by a balloon 131 feet high, and 104 broad.
- M. Blanchard, in March of the same year, rose to an altitude, which is calculated at 9500 feet, and descended in an hour and a quarter, having experienced heat, cold, hunger, and an excessive drowsiness.
- M. Bertrand, in April, rose from Dijon to the height of 13,000 feet, and in an hour and a quarter sailed 18 miles.
- Madame Thible, who was the first female adventurer, ascended in June from Lyons, with M. Flourant, in the presence of the late King of Sweden, and reached the height of 3500 feet.
- M. Mouchet, in the same month, ascended from Nante, and travelled 27 miles, in 58 minutes.
- M. Rozier, in another experiment, reached the height of 11,700 feet, and found the temperature of the air reduced to 5 degrees below the freezing point.
- The Duke de Chartres (Orléans) ascended in July from the park of St. Cloud, with three other persons.
- Vincent Lunardi, in September 15, rose from the Artillery ground, by a balloon 93 feet in diameter. In his ascent the thermometer fell to 29, and some drops of water round his balloon were frozen.
- M. Roberts and Hullin, in the same month, sailed from Paris to Arras, in six hours and a half.
- Mr. Sadler, who was the first Englishman that ascended with a balloon, rose in October, from Oxford.
- Mr. Sheldon ascended from Chelsea in the same month.
- M. Blanchard and Dr. Jeffries, on the 7th of January, 1785, crossed the channel between Dover and Calais, by means of a balloon, but had such difficulty to keep it above the water, that they were obliged to throw overboard every thing they had with them.
- Mr. Crosbie ascended from Dublin, in the same month, with such rapidity that he was completely out of sight in three minutes.
- Count Zambecari and Admiral Sir E. Vernon, in March, sailed from London to Herisham, 35 miles, in less than an hour.
- Mr. Windham and Mr. Sadler, ascended from Moulsey Hurst in May, and descended at the confluence of the Thames and Medway.
- Mr. McGuire, in the same month, having ascended from Dublin, was taken up in the Channel by a boat, when on the point of expiring with fatigue.
- M. M. P. De Rozier and Romain ascended from Boulogne, on the 15th of July, with the intention of crossing the Channel, but their balloon, being a *Montgolfier*, took fire at the height of 1200 yards, and they were dashed to pieces by the fall.
- Mr. Crosbie, who again ascended from Dublin; and Major Money, from Norwich, in the same month, both fell into the sea, and were with great difficulty saved.
- M. Blanchard, in August, sailed from Lisle to a distance of 300 miles, before he descended.

For the MORNING HERALD.

PHILOSOPHICAL OBSERVATIONS on the AIR and BALLOONS. 1784

MR. EDITOR,

THE indulgence of honoring the *Laurel Sprig*, with a corner of your paper, has induced him to continue his communications; at least, if his principles are not philosophic, they will be found under the government of minute observation, arising from the nature and existence, and operation of a deliberative knowledge. He will therefore consider *THREE* things, which the Balloonists have never attended to.

1st. Whether the air is not more humid in the *second region*, than on the earth, or above that humid region, and how much more *secoco* that superior region is than on the earth. The highest region, as I formerly noticed, is not influenced by the sun, more than the lower regions of *fresh water*; and that it is very cold, and the air almost in a stagnated state, but it neither can be below 33 degrees, nor become putrid. It is drier, and less moist than the region below, and whenever there is collected any denser particles of air, they will fall into the medium or moist atmosphere. But notwithstanding the serenity of that superior region, no observation, however high a balloon may ascend, can be taken of the planets, so distinctly as on the earth, because the *compass will not point*; because a time piece will not keep distinct and accurate; because they cannot know what latitudes or longitudes they may be in; and therefore they cannot discover the *hour, longitude, latitude, and altitude*, in which, to observe the planet, even supposing the balloon to stop for the purpose; but principally, because there can be no reflection of any fixed star on the balloon, as on water on the earth, or on the earth itself, which acts as a reflector to these luminant bodies.

2d. Whether the middle region is not always moist and drizzles, and is rendered apparently colder, than the superior region, on account of the humidity. A cloud must contain wet, however thin and light, as well as a phlogiston:—That region receives the denser particles from the higher regions, as well as the moisture and exhalations from the earth, with the phlogiston arising from the reflection of, and metals, minerals, sulphur, acids, and salines in the earth, and sea; such a region or atmosphere must always have impregnated materials, to burst into thunder, on a surcharge, even without the action of the sun. To evince this, I have known some claps of thunder in December, with a South wind; but the sun's influence agitating the whole mass, the thunder oftener bursts in Summer. In America, at the falls of the Mississippi river, it thunders always, from this cause; that the fall is very high, the air it passes through carries off part, and forms an impendant cloud over it, and that increase of moisture and phlogiston is continually poured out in thunder and rain. It is in that middle atmosphere, the clouds are collected and densified, though some times a stream of air, intercepts the one body from the other; hence, we sometimes see, the clouds driven different ways. This densification contains a body of water impregnated with phlogiston, and swims along, on the thick atmosphere, spread over the earth—Mountains bring these clouds in contact, hence it rains oftener in mountainous and hilly countries than in plains; *islands* have an air altogether unequal, on account of the sea; and that they are less of a focus for the sun; hence it rains oftener, and is colder, and the air more various in islands, than on continents; and for this reason, that continents have the effect of a focus, and the air more equal, it is warmer in Summer, further North, than in this island, and their rains are periodical; for which, I shall at a future period assign the cause; therefore a balloon in England, and on the continent, will have a different motion; on the continent it will be equal, here it will rise and fall, go fast and slow, according to the mediums of air it gets into. If a balloon comes in contact with a thick cloud, it will attract the water, and they will be certain of being overborn by the stream, and tumble in confusion; lightning will also spring forth, and that will be followed with thunder. They cannot penetrate, it would be as easy to force the balloon down some fathoms in fresh water, as operate a projection above such a cloud. Those in the *gondola* must be drowned or suffocated; the gondola filled with water, and nothing could prevent the bursting of the balloon, but that it is not wholly filled; but, if the balloon should be in that situation, it could not escape the lightning, notwithstanding its conductorial file. I may evince this by firing a cannon; at the mouth, when the shot is discharged, every object, within some feet at least of circumference is singed, perhaps destroyed; the flash from a cannon is not the hundredth part so large, as that from a cloud, before a clap of thunder, and the balloon's being immediately in contact, must fall a wreck to its immediate power, and though a conductor, it would not in the least avail.

3d. That the atmosphere, nearest the earth, is that which the *wind* passes immediately along, because compressed between the region of the clouds and the earth. It affects the earth from another cause, because it flies always horizontally, and falls down till resisted by the earth, where it scours along with noise and impetuosity, proportioned to its obstructions. On the sea the same cause is assignable, because it is gibbose, and throws many obstructions in the way as well on that account as the surges, forced by the compression of the wind.—The waves run not along, as we suppose, but are as many columns of water which fall and rise. The same wind will affect them differently, according to the depth or shallowness, fluxes, rocks, or such circumstances. The sea is not agitated very deep, but acts in a regular body, by an imperceptible motion, such as we suppose the earth, but her motions are *Lunar*, and give rise to the tides. The balloon, in this atmosphere nearest the earth, will rise and be supported with ease, but I am fully persuaded cannot be carried beyond it, because if it gets out of that air, in a clear day, it will come into an air too thin, nearer approaching to its own levity, and there it cannot swim, and it must remain and be carried along the same atmosphere according to the surface of the earth, the air in that region will be different. In the vicinity of mountains a balloon will not easily rise or swim; from the top of a mountain it would not go off; between mountains it would be hurled impetuously along. On a plain, either marshy or woody, it would be long buoyed up and go gently. It will not make its course to mountains, because the wind often, in all directions, blow from them. It will keep its direction on plains or great rivers, because the air is dense and more equal. But it has not been ascertained by the travellers, at what rate, equal or unequal, the balloon goes. They cannot measure its different actions by any known instrument; that has been done on earth.

The Air-Balloon, says a correspondent, is not a modern invention. The first who ventured to ride the air, according to Milton, was the Devil. And the attempt and success are thus described:

— His sail-broad vans
He spread for flight, and in the surging smoke
Uplifted spurn'd the ground; thence many a league,
As in a cloudy chair, ascending rode
Audacious; but that seat soon falling, met
A vast vacuity: All unawares
Fluttering his pennons vain, plumb down he dropt.

On the art of navigating the air, even the learned Franklyn has acknowledged his ignorance: he called balloon-flying, "A child that would become mature!" The cognoscenti of France, however, speak of efforts made, before the present century, to approach the atmosphere. It appears in the Memoirs of the French Royal Academy of Sciences, that one De Lana contrived an areonautic engine for navigating the air; and that the famous Roger Bacon contrived something of the kind. But it does not appear that either De Lana or Bacon, ventured to rise up in their machines, as Blanchard and Lunardi. 1784

The invention of navigation is variously attributed to various causes or accidents: The poets have given the honor to Janus, Jason, Hercules, Neptune, &c. whilst history ascribes it to the Phœnicians, Tyrians, and the ancient inhabitants of Britain; and sacred writ refers us to the ark of Noah! But 'tis the present age which has the honor of inventing balloon flying! And as the machine of Lunardi, when high in the air, appeared obviously to depend, as to its course, on the oar or oars which he had, it is impossible to say to what perfection this sublime mode of travelling may be brought. Whether it should ever be of any use or not, it is worthy of encouragement and applause, if genius be deserving of patronage. 1784

The invention of balloons is by no means a modern discovery; for so early as the reign of Edward the First, the great Roger Bacon, (who died A.D. 1284) asserts that he "was exceedingly well acquainted with a very prudent man, who had invented the whole artifice of flying." Again he says, that "it is not impossible to make engines for flying, a man sitting in the midst whereof, by turning about an instrument with artificial wings, made to beat the air."—He afterwards observes, "such engines as these were of old, and are made even in our days. The same great man clearly discovered gunpowder, "a very competent quantity of matter (says he) rightly prepared (the bigness of one's thumb) will make a most hideous noise and corruption, "this may be done several ways, by which a city or army may be overcome."—Bacon's Discovery of Miracles.—This sublime philosopher was accused of diabolical magic before Pope Clement the 4th, and was imprisoned on that account for some considerable time.

*The Air Balloon, or Aerostatic Machine:
a Tale.*

In a lone Cottage, far from Town,
Liv'd John, an honest, simple Clown;
Dolly his wife, and little Ned,
Were all the family he had.
Dolly was constant, John was true,
No variegated joys they knew:
In ignorance they pass'd their days,
Nor wish'd to learn more polish'd ways.
John went to plough at break of morn:
At night Doll watch'd for his return,
And as she saw him homeward trot,
She took the Bacon from the pot:
With no corroding cares oppress,
Content was still their constant guest.
One day when Sol, to take a nap,
Was sinking into Thetis' lap,
The happy pair, their labour done,
Walk'd out to view the setting Sun:
As Arm in Arm they jogg'd together,
Admir'd the Fields and prais'd the weather:
A globe that hover'd over head,
Till'd them with wonder and with dread.

"The Moon is tumbled from the Skies,
"And Doomsday come," John trembling cries.
Doll to his Arms for safety flew,
And mutter'd all the prayers she knew.
While silent horror reign'd around,
The globe descended to the ground;
When, lo! a Man, of stature tall,
Stepp'd briskly from the painted Ball.
He saw the couple at a stand,
And straight approach'd them, hat in hand.
John pluck'd up courage, now, to speak,
And, grasping fast his oaken stick —
"You thing that from the Moon came forth,
"What business have you here on Earth!"
"In the name of all the Imps in Hell,
"The reason of your journey tell:
"For that you be so mighty civil
"I shrewdly think you are the Devil."
The Traveller smil'd, and thus began:
"I, like yourself, am but a Man.
"That globe, which you have call'd the Moon,
"Is nothing but an Air Balloon:
"And as the night draws on apace,
"And I'm a stranger in this place,
"With your permission I will stay
"Beneath your roof 'till break of day."
"Awast a bit, there!" John replies:
Then archly pointing to the Skies,
He hurried home and lock'd the door;
His heart was steel, he'd hear no more;

*But left the poor Devil Knight
On the cold bench to pass the night.*

*Southampton. June 1796.
copied by William Upcott.*

THE AIR BALLOON, or FLYING MOR-
TAL. A POEM. 1784
To be had at Mr. Mackle's, in the Hay-market, and at all
the other Pamphlet Shops in London.
Shall Albion's Sons for Fame, for Arts, renown'd,
Content to crawl like reptiles on the ground?
Nor from this globe, this spot, assay to rise,
Whilst France and Italy ascend the Skies!
Rouse! Britons Rouse! and emulate of name,
In every Story Realm, assert your Claim.

SCOTS POEM on the AIR BALLOON.
By Colonel ERSKINE. 1785

SWEET keep us a' fire what's no right,
A rare witchcraft art or wondrous wight;
For folks are now goun' out o' sight
Aboon the yird;
Up gets the Gipsins wi' a flight
Like ony bird.
Sic faillies ne'er were seen before
Mang a' the pauky carls o' yore,
Tho' they had gimcras ke mony a score,
Yet weel wot I
They ne'er fan' out the gate to bore
Up thro' the sky.
But spite o' a' their weel tald wordies,
Tho' folk had wings upon their girdies,
Yet they're o'er stark about the hurdies—
O'er dreigh shin',
To gae to flee like birs o' burdies—
An' that they'll fin'.
I'd war the price o' twa gude shoon,
To see this sam' trick fairly done;
But whan they're flittin' to the moon
Wi' glee and fun,
Wow, sirs, they'll see the birds aboon
As sure's a gun.
Tho' I war sure o' na mischanter,
My dizzy pow I wadnae venture
To sail tae heigh aboon the centre
In sic a car,
Or flee on ony mad adventure,
The Lord kens whar.
To gae to flee w' de'il ae feather!
An' climb the air without a lather!—
Eh! by my fae! I'd ha'e a tether
To stop my drift,
Whan hablin' at a big blaw'n blather,
Up thro' the lift.
A tiply buk wad yoke it fine,
Whae pow is dais'd wi' midnight wine,
"Dem me (he'd cry) let's have a shine,"
An' aff he'd flee,
Till fate might land him soon or fyne
In some mizee.
In France ilk' ane has his ballo n—
They're swarmin' there in ilka town,
Like pyets happen' up an' down;
But mony a ane
Has fa'en an gotten a crackit crown,
Or broken bane.
Balloons are rife enough at hame,
Our wigwagons are the same,
Wi' noddies toomer far than them
They strut the caufey,
At mony a neckle's air scheme,
Barn proud an' faucy.
There's Watt'ck, who's but ferhyer cam'
Wi' plaidin' coat srae the plough tram,
Wha glour'd as doil'd as ony rain,
Seeth e e I'ow,
He keeps a shop, and that nae sham—
Keek at him now!
His pow w' creish an' dent is sockit;
Fur tap to the h'e's newly sockit;
Wi' baith his haffers toby docket
He struts awa';
An' eh fae heigh's his nose's cockit—
Gude guide us a'!
O' pride he has an unco' skair,
Doe gies a nod to ene that's bare,
But nae balloons flies thro' the air
Wi' sky sail riggin';
Ay mony a castle he has there
O' his sin biggin'.
Poor doited ghait! he disna think
That you h is but a bony blink,
Whilk sie'ly steals him to the brink
O' blitty eild,
Whar his balloon some day maun sink
An' flit the field.

Speedily will be published, in Three Vols. 12mo,
THE AIR-BALLOON;
A NOVEL.
In this my Novel Air-Balloon,
I mean a party to the Moon;
Consult the planets, and the stars,
And chat with Mercury and Mars,
Learn all the pretty thefts above,
As hints below, for those in love;
Then take a trip to tonish France,
View Sweden, Italy, and Dantz;
Pass o'er to Germany, and Spain,
And pay a bow d'ye to the Dane;
Next pass the Alps, and visit Rome,
To drop a tear at Virgil's tomb;
From thence for India and Peru,
In search of what is rare and new,
Then rich the plan, I have in view,
Through Flanders next I mean to steer,
And take a whiff with Yaw Mynbeer;
Then heigh for England's happy ile,
Where all the Loves and Graces smile;
There bursting from my airy shell,
The secrets of my prison tell,
In hopes each reader to delight,
In what my fancy shall indite,
Drawn from the customs, manners, lives,
Of men, their mistresses, and wives;
Whether from home, or foreign Court,
Each shall be made your laugh and sport.
By the Author of
N. B. FASHIONABLE FOLLIES; a Novel; in two
volumes, with an elegant characteristic design by the ce-
lebrated Mr. de Louthembourg, and engraved by that
eminent artist Mr. C. Ruotte, may be had at Mr. R. Dod-
dley's, Pall-mall, where the above new Novel will be pub-
lished, and timely notice given. Jan. 7. 1784

THE AIR BALLOON. 1784
BY land, let them travel, as many as list,
And by sea, those who like the hard fare;
In an airy Balloon, whilst I sit at my ease,
And pleasantly glide thro' the air!
Round this globe, is the farthest they ever can reach,
Let them travel night, mornings, and noon;
Such excursions as these, are but mere bagatells,
When compar'd with a trip to the moon!
In my chariot aerial, how pleasant to go,
To see all my friends in the stars—
Take a breakfast with Mercury, and dine if I please,
With Jupiter, Saturn, or Mars!
And should I fatigued, or wearisome prove,
Whilst from planet to planet, I'm dodging;
With Venus, I'm welcome to tarry all night,
Where on earth can you find such a lodging?
E. T. P.

POETRY.
SONG.

TAFFETY AIR-BALLOON,
By Sir THOMAS G——, Bart.
To the Tune of GALLOPING DREARY DEN.
A CARRIAGE I have, and 'tis one of my own,
Taffety Air Balloon,
And what is the wonder, 'twill go all alone,
With its hally, gaily, gambo, raily,
Giggling, niggling, fluttering tiffany,
Taffety Air Balloon.
I mounted the thing, so gay and so fair,
Taffety Air Balloon;
And I fill'd the machine with inflammable air,
With my hally, &c.
I flew in an instant, up so very high,
Taffety Air Balloon,
That every one thought I was lost in the sky,
With my hally, &c.
Of the Man in the Moon I enquired the way,
Taffety Air Balloon;
Odzooks! quoth the wight, you've quite gone astray,
With your hally, &c.
I scudded along, and 'ere it was morn,
Taffety Air Balloon,
I found myself stuck upon Taurus's horn,
With my hally, &c.
The terrible sign to's'd me off with a bound,
Taffety Air Balloon,
And I found myself landed on Isth ground,
With my hally, gaily, gambo raily,
Taffety Air Balloon!

The favourite BALLOON SONG, sung by Mr.
ARROWSMITH at VAUXHALL. Set by Mr.
ARNE. Written by Mr. PILLOW. 1781
YE high and low-flyers, of all ranks attend,
And council receive from an Aeronaut
friend;
Your coaches and chariots henceforth lay aside,
Prepare in balloons thro' the skies all to ride,
With dust of vile wads who'd be choak'd or be
blind,
Like witches on brooms you may post on the
wind,
O'er valleys, high hills, and wide seas you may
sweep,
And into the moon, your own sphere, take a
peep.
The Belle, who for titles in vain heaves the sigh,
Can't fail of a star, there's enough in the sky;
In moons made of honey, fond husbands at
peace,
Shall ne'er know when horns do begin or in-
crease;
Whilst the poet who starv'd here below all his
life,
A fortune shall get in the clouds with a wife,
And fed with pure ether, Camoleon's light fare,
Our bard shall possess a fine castle in air.
The holder of stock too, when up he ascends,
In the Bull and the Bear, shall find Alley friends;
Physicians also, to the skies shou'd they rove,
Shall meet many friends they themselves sent
above,
And fed'd by Old Nick to untune all the spheres,
Good lawyers might set fun and moon by the
ears;
But in pity to Earth wou'd England's Queen fly,
She'd bring down Aftrea once more from the sky.

For the Public Advertiser.
1784 AIR BALLOON.

IN Air Balloon, as in a rapid Car,
From Earth, as from my Barrier, I set
out,
How swift I mount! Diminish'd "Earth"
recedes;
I pass the "Moon;" and from her farther
Side,
Pierce Heav'n's blue Curtain; strike into
"Remote;"
Where, with his lifted Tube, the subtle Sage
His artificial, airy Journey takes,
And to "Celestial" lengthens "Human"
Sight.
I pause at ev'ry "Planet" on my Road,
And ask for "Him" who gives their Orbs
to roll,
Their Foreheads fair to shine. From "Sa-
turn's" Ring
With the bold "Comet," take my bolder
Flight,
Amid those "sovereign" Glories of the Skies,
Of independent, native Lustre proud;
The Souls of Systems! and the Lords of Life,
Through their wide Empires!—What behold
I "now!"
A Wilderness of Wonders burning round;
Where "larger" Suns inhabit "higher"
Spheres;
Perhaps the "Villas" of descending Gods!
Pause then; and, for a Moment here respire,
If Human Thought can keep its Station here.
Where am I? Where is Earth? Nay, where
art thou,
O! Sun?—Is the Sun turn'd Recluse? And
are
"His" boasted Expeditions short to "mine?"
To "mine" how short! On Nature's Alps I
stand,
And see a Thousand Firmaments beneath!
A Thousand Systems! as a Thousand Grains!

POETRY.
1784
The BALLOON-HAT.
SEEST thou yon hat, whose dancing plume
O'er Celia's tresses casts a gloom,
And shades her lovely face?
From Gallia's fire-fraught AIR BALLOON
This feather'd monster of the town
Its lineage dares to trace.
Nor ill defin'd its name, I ween:
Adapted to the fickle mien.
And nature of a woman—
For are not some who figure in it,
The flying Cynthians of a minute,
Than air more light and common?
EPHEBUS.

BALLOONISTS.

OH! happy nation, great in arts and arms,
Whose Milliners the love of glory warm,
Whose Admirals forsake the swelling tide,
"High on the wings of mighty winds to ride;"
Whose Surgeons leave their patients to their fate,
To whiff about the air in full blown state.
Could Bacon, Boyle, or mighty Newton see
Such wretched spawn of new philosophy,
Mere children, of their air-blown bubbles proud,
No aim but to delight the gaping crowd,
Such mere men-monies in a mortal shape,
"They'd view their heroes as we view the ape."

SONNET.

On an AIR BALLOON.
By Mrs. POZZI.

IN empty space, behold me hurl'd,
The sport and wonder of the World;
With eager gaze, while I aspire,
Expanded with aerial fire!
And since Man's selfish race demands,
More empire than the Sea's or Land's;
For him, my Courage mounts the Skies,
Invoking Nature while I rise!
Mother of all! if thus refin'd,
My flights can BENEFIT MANKIND;
Let them by Me, new realms prepare,
And take possession of the Air.
But if to ILLS alone I lead,—
Quickly, oh quick, let Me recede!
Or blaze, a splendid exhibition,
A BEACON, for their mad AMBITION! 1788

1788 AIR-BALLOON.
Negata Tentat Iter Via

IN vain, since hapless mortals try
To shun th' unerring shafts of Death;
Since all that creep, and all that fly,
Must, soon or late, resign their breath!
Why should we fear? improve the day!
The fleeting day from darkness given!
And, where bright Science points the way
To range the land, the sea, the heaven!
Then freely mount th' expanse above,
Fond Man! nor dread the ebony rod;
On wings of wind sublimely rove,
A great, a momentary God!
Beholds he Jews! and deems it fable
By gloomy Jews contriv'd of old,
That those who rais'd the Tower of Babel
Were by the Almighty's hand controul'd.
No more the Eternal rules in ire,
His wondrous love is round display'd!
Hellsmiles to see weak man aspire,
Pleas'd with the worm his breath has made!
And thou who cleav'st the azure sky,
Like him, with pity shall look down!
Shall view, like him, with equal eye,
The Shepherd's Crook, the Monarch's Crown!

THE AIR BALLOON.

1
By land, let them travel, as many as list,
And by sea, those who like the hard fare;
In an airy Balloon, whilst I sit at my ease,
And pleasantly glide thro' the Air.

2
Round this Globe, is the farthest they ever can reach,
Let them travel night, morning and noon;
Such excursions as these, are but mere bagatelles,
When compar'd with a trip to the Moon!

3
In my Chariot Aerial, how pleasant to go,
To see all my Friends in the Stars;
Take a breakfast with Mercury, and dine if I please,
With Jupiter, Saturn or Mars.

4
And should I fatigued, or wearisome prove,
Whilst, from planet to planet, I'm dodging;
With Venus, I'm welcome to tarry all night,
Where on Earth can you find such a Lodging?

Morning Herald May 10. 1794.

copied by William Lyscott. 102 Upper St. S. London
Aug. 30. 1840

The Air Balloon.

By the Rev. M. Parrcell.

With heads light as Lephys, the Vapor as light
Whose hearts pant to visit the moon -
Prepare with the woodcoche to take your airy flight,
And handseil the Air Balloon.

2.
This overgrown Bladder but waits to be tried
Within soft and swiftly you'll find
(As safe as a thief in a mill) room to ride
And leave Terra firma behind.

3.
With besoms will sweep thro' the skies as we soar
From cobwebs their drapery clean;
Joves moonlings will snuff, which were ne'er snuff'd before
While whisking their Orbs to be seen.

4.
The Man in the moon with his huge splutter face
His guests at his threshold shall greet;
With wonder from earth shall each pilgrim embrace
And laugh at the novel conceit.

5.
Old Moon him may laugh, in the laugh well unite
Midst his groves and his glades as he roams;
When his welcome once wanes we'll wish him good night,
And again as we went, haster home.

6.
And when we get home in this Bladder Balloon,
Our wit and our wonder shall run
On all the fine sights which we saw in the moon.
And then we'll go visit the Sun -

FOR shame, ye Oxonians! what, shall it be said,
That your pastry-cook mounted before ye?
Are ye then of such rapid ascent so afraid?
Are ye dead to ambition, and glory?

Has Oxford, no genius, to soaring inclin'd?
I wonder, your pride has not stung ye!
Since, bold, airy flights, have been, time out of mind,
Both famous, and frequent among ye.

Now the Poets of Grub-street outdo this' sons,
E'en the Blue-stocking club will surpass us:
Then mount the Balloon—I advise for this' once;
Ye may chance get a sight of Parnassus.

Has Cambridge no Pegasus ready to soar high?
If she had—she has none to sit thereon:
For the Gogmagog hills, are the scene of her glory;
On the hacks, of my friend* Jocky Baron.

Ye smug, catch-weight Divines, cas'd in leather so tight,
Quit the turf—nor heed your groom's laughter:
Tow'rs the standard of Heav'n, make a match to take
flight;

Ye may ne'er be so near it hereafter.

Gray's fire, indeed, lately lit up the page;
Then to imitate him take the trouble:
What—have we a genius but once in an age?
Alas! Pegasus won't carry double.

Ah! Helicon's springs do not flow as before:
This, our L—r—te, knows to his cost.
Read M—, and H—y—y, and five hundred more,
You'll begin to believe the spring lost.

A Balloon, like their Poems, is turgid I wean,
You may look long, and find nothing there:
In M— you'll smell, it's not meant to be seen,
A great deal of inflammable air,

We Poets ourselves, so far like a Balloon,
What becomes of us no one can say;
We are worth very little—out of sight very soon,
And are only the sport of the day.

PHRENETICUS

* A Livery Stable keeper.

POETRY.

PROLOGUE

To the new Farce of AEROSTATION, performed
last Friday night for the first time at the Theatre
Royal, Covent-Garden. 1784

SPOKEN by Mr. WILSON.

T'ONIGHT'S Adventurer with awe looks round,
And views the perils which his bark surround;
Three years are past since on this coast he came,
Bound on a dang'rous voyage, in quest of fame.
Your smiles he'll deem precipitous beams that rise,
Circling the star that lights his polar skies;
And near approaching that magnetic part,
He feels the needle trembling at his heart.
But of our bard enough perhaps I've said,
When greater cares are lab'ring at my head.
I make no doubt to entertain you soon
With a new theatre in a Stage Balloon;
No more in garret high shall poets sit,
With rival spiders spinning cobweb wit;
Like ancient Barons future bards shall fare,
In their own castles built up in the air;
Dull poets then behind a cloud shall stay,
Whilst fancy, darting to the source of day,
Bold as an eagle, her career shall run,
And with strong pinions fan the blazing fun.
But ere we raise our play-house in the skies,
As Wit's Prime Minister I'll raise supplies.
For, sad to tell! above, as here below,
'Tis only money makes the mare to go;
Bubbles shall then be tax'd of every kind;
Why tax the light, and leave untax'd the wind?
First, for Pinetti's sake, of high renown,
Who'll steal the shirt off any man in town,
A heavy tax on common sense shall fall;
Nay, you may smile, but it affects you all:
Italian op'ras, like aliens, I've devis'd
Shall pay a poll-tax to be nat'raliz'd.
Farce, dance, and pantomime, with sprites and dragons
Shall pay a carriage-tax of broad-wheel'd waggon;
And as for tragedy of modern date,
Let it contribute at Quack med'cine rate.
A tax too we enact new pieces pay,
Apollo's civil list expences to defray;
Living or dead, henceforward we decree,
Damn'd, or still-born, no author shall be free;
Genius shall pay for being born to fame,
And dulleads for the burial of its name.

Thus, if our ways and means the state you find,
I hope these aids will meet the House's mind.
On you the stage rests all her rising fate,
You give our wit both currency and weight;
From hence like gold in circulation brought,
By all the world it eagerly is sought.
If critics come not on the mintage night,
To cap the sterling, and then call it light,
Assist our wishes, grant the meed we claim,
Praise that inspires, and smiles that guard our fame!

EPILOGUE to DECEPTION,

Written for Miss FARREN, by E. TOPHAM, Esq.

S drowsy sentries, whom no thanks reward,
To yawning comrades yield the nightly guard,
So one sad comedy relieves another,
And dullness kindly finds as dull a brother.
Condemn'd to wade thro' all the tedious past,
I—your old epilogue—survive the last—
And here am left—poor pleader to atone
As well for other's errors—as my own.
For late you felt—nor long remov'd the time,
How soon from rhyme in prose—I pro'd in rhyme.
The metred muse—each passion chim'd so pat,
Sir tag'd out this, and Madam jingled that:
“Twas, pray Mr. what's your name, how do you do?
“Pretty well Sir, I thank you:—and pray how do you?
“A touch of your snuff-box—my charming Miss Fynchl
“To be sure, Sir, I'm always your friend at a pinch.”

And yet, seduc'd by Haymarket flirtation,
Methinks I owe my friends some reparation,
For have I not, with strange unbridled fury,
Storm'd the mock tragedy of antient Drury?
Laugh'd at her weeping heroes, boxing chiefs,
Her mournful pleafantry and joyous griefs,
Made Lords and Ladies all unpitied die,
Who wept, and fought, and bled—they knew not why?

Yes:—but unfulfill'd by this casual stain,
Again shall rise the powers of Drury-lane;
Th' eternal handkerchief be hous'd hereafter,
And tragedy no more provoke your laughter.

But why thus dwell on sublimity things,
On paste-board sceptres, and on playhouse Kings?
Fancy with airy flights my noddle crouds,
I'm like the nation—wholly in the clouds;
Nothing for them too high—for me too hardy—
Give me a second trip with Sieur LUNARD!
There mounting dauntless to the pale-faced moon,
Find out at last—that cats may die too soon;
Then spurn at dread of elemental wars,
To drink Madeira, and shake hands with stars,
Jostle the hawks and eagles as I go,
And leave the gaping “pigeons” far below.
—Below—where fatt'ning on Artillery fare,
Peers, Chemists, Aldermen, and Princes stare,
Such fare as makes all martial glory prouder,
—Store of stuff'd beef!—but not a grain of powder:
Soldiers enfor'd!—and did I wish for pelf,
I'd under-write the garison myself.

O what a grand display such Science yields,
Beaux from Pye-Corner—Belles from Spital-Fields!
Jews, dogs, and dust-carts nobly intervene,
And Ministers on scaffolds close the scene!

By puffs inflammable and favouring skies,
Say then, to night shall our Balloon arise?
Or, weight and ballast baffling each endeavour,
Shall it just curt'sey, and then sink for ever?

POETRY.

For the General Advertiser.

The following VERSES were sent up with an

AIR-BALLOON. 1784

A SIMILE.

MAN, since first his breath he drew,
Was always pleas'd with something new;
And every age sets up pretensions,
Above all others, for inventions:
In our wise times, th' ingenious elf
Invents a fabric like himself;
For we, in Air-Balloons, may trace
Faint emblems of the human race.
At first, the languid balls, with ease,
Are mov'd about just where you please;
But, when fermenting fires begin,
And the fierce spirit works within,
All fordid Natures they expel,
And soon th' important baubles swell;
Out spread their sides, and, full of soul,
They grow impatient of controul;
Ambitious puffs! with empty state,
You hurry on your dubious fate;
The cords are cut; and, freedom found,
You fearless quit the steady ground,
And give th' uncertain winds their prey,
That bears you, as they list, away.

Some, feeble and but little worth,
Can scarcely quit the fertile earth;
Some, struggling through the denser air,
Often are bandied here and there,
Before the mountain they can crown,
By many a side-wind beaten down;
Others their gilded forms display,
And smoothly win their easy way;
Buoyant, their spirits lift them high,
And urge them to a purer sky;
And now, th' ethereal regions won,
The fabrics float sublimely on:
Still insecure! for, even here,
Storms often meet their mid career,
Soon overcome their feeble might,
And dash them from their towering height.
Others, when dreary Night hath spread
Her dusky mantle over head,
In the dark sky their stations fix,
And seem among the stars to mix;
There, while th' unwonted blaze they show,
Amazement fills the crowd below!
Vain forms! that wonder can dispense,
How transient is your consequence!
Tho' favouring gales blow smooth and strong,
To bear your radiant forms along;
Tho' mortals, as they view from far,
Fancy they see a blazing star;
Soon shall your ardent spirits fall,
And languor o'er your frames prevail,
Which, tho' escap'd the storm and blast,
Down to the earth shall sink at last.

Where is the Wight, who does not see
How aptly fits the Simile?

Mortals, to Air-Balloons ally'd,
Move not, at first, without a guide;
Hapless through years they live, and still
Are subject to another's will;
We mould their pliant forms with ease,
And make them take what road we please:
But when, by working passions press'd,
When wild Ambition swells the breast,
The reins of prudence they disdain,
And struggle with the galling chain;
Till, free, their growing strength they try,
Out-spread the wings of Liberty,
And every feather is unfur'd,
To bear them on a stormy world.

And now, the wish'd-for freedom got,
Ah! how uncertain is your lot!
Feeble, the force that some will trust,
Scarcely lifts them from their kindred dust;
Awhile they flutter to aspire,
Their wings still labouring in the mire;
Others with bolder spirits swell'd,
Thro' all obstructions are impell'd;
Tho' clouds upon their efforts frown,
And side-blows often beat them down,
Undaunted they pursue their way,
And struggle to a brighter day;
Others, in gilded plumage dress'd,
With high and potent spirits bless'd,
Rush forward in a bold career,
And try to gain the loftiest sphere;
Success attends their daring flight,
And soon they reach Ambition's height;
Conspicuous in the glare of day,
Their gorgeous forms they wide display;
A purer air they seem to breathe,
And scorn the wondering world beneath.

POETRY.

PITT'S BALLOON:

A PARODY. 1784

AS Lucifer no long time since
Was sporting in the air,
And that he's there a sov'reign Prince—
Th' Apostle does declare;
A carriage he, aerial, met,
With passengers a crowd:
Huggle, duggle, ha, ha, ha!
Th' Devil laugh'd aloud!

Halloo, quoth Belshazzar, I crave—
Your names, who boldly dare
The Terra firma thus to leave,
And fly in open air!
I'm sure the Devil bid ye all
Attempt this wicked cruise:
Huggle, duggle, ha, ha, ha!
Now pay my airy dues!

A heavy tax on each balloon
With passengers I've laid;
That flying dares to scale the moon,
And these my realms invade!
Altho' P—gative does claim
With me, of Hell a share;
Huggle, duggle, ha, ha, ha!
Yet I'm sole monarch here!

May't please your Devilship, quoth Pitt,
I, and my colleagues here,
Beg that this once you will permit
Our journey thro' the air!
We're all sprung from behind the Th—ne
A most obsequious crowd;
Huggle, duggle, ha, ha, ha!
The Devil laugh'd aloud!

Said Satan, well, as you're a friend,
And T—ple too is here,
You in the House I'll still attend,
Altho' I don't appear;
I, at your elbows always stand,
And whisper'd what to say;
Huggle, duggle, ha, ha, ha!
And well you did obey!

And tho' your half-sledg'd pinions fall,
Your Tory schemes pursue;
Continue still at Fox to rail,
And his adherents too:
By secret influence undermine
The freedom of the land!
Huggle, duggle, ha, ha, ha!
For that is my command!

Despising all that honest tongues
In either House can say,
There's one, to whom high pow'r belongs,
Shall point you out the way;
He'll find you air inflammable,
A fall you need not fear;
Huggle, duggle, ha, ha, ha!
'Twill save you half the year!

By ***** himself, the pilot make,
And T—w shall assist,
And R—s Duke a part shall take,
And S—y lend a fit;
And squinting Jack shall hold the string,
For hump, him well becomes;
Huggle, duggle, ha, ha, ha!
Now found your rattling drums!

But angry Jove sent Mercury
To stop this proud balloon;
“By Styx, that beardless boy, said he,
“Aspires to scale the Moon!
“Tell them that Fox and Portland are
“The sav'rites here above:
“And Freedom's firm built fabric, far
“Beyond their strength to move!”

“That Pitt has made a pit, that hath
“Their own destruction wrought,
“And brought upon them all the wrath
“That they for others fought!”
This said, then stick your winged staff
Into their airy ball—
Then huggle, duggle, ha, ha, ha!
The world shall see them fall!

But should by Mercury chance to catch
Them, ere they reach the Moon;
Jove's dreadful orders to dispatch
And stab their Air Balloon;
Old Lucifer determines, yet
To hold superior sway,
He swears he'll catch them in his net,
And carry them away!

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THE DAILY GRAPHIC, JULY 26, 1909.

HOW I FLEW ACROSS THE CHANNEL: BY M. BLERIOT. (See Page 7.)



LONDON: MONDAY, JULY 26, 1909.

REGISTERED AS A NEWSPAPER.

BRAVO BLERIOT!



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Boulogne	3	21 0	12 6	12 6	12 6
Do. (via Ostend)	8	30 0	25 0	17 10	17 10
Brussels (via Calais or Boulogne)....	8	48 3	33 6	24 6	24 6
Do. (via Ostend)	8	33 1	25 6	17 4	17 4
Amsterdam (via Flushing)	8	32 10	22 5	—	—
The Hague (via Flushing)	8	22 6	—	14 0	—
Calais	8	31 9	26 6	20 6	20 6
Nancy (for the Exhibition)	14	81 0	55 6	37 6	37 6
Ostend	8	28 9	20 3	13 8	13 8
Le Touquet (Paris F&G)	5	34 9	26 7	21 5	21 5

WEEK-END TICKETS AVAILABLE BY ANY TRAIN
(Mail and Post Expresses excepted) will be issued from
LONDON and certain Suburban Stations to the undermen-
tioned SEASIDE, etc., RESORTS on July 30th, 31st, and
August 1st, available for return on August 1st, 2nd, 3rd
and 4th.

RETURN FARES.	1st Cl.	2nd Cl.	3rd Cl.	1st Cl.	2nd Cl.	3rd Cl.
Ashford	14 0	9 0	7 0	Littlestone	16 0	12 0
Exhill	14 0	9 0	7 0	Margate	16 0	12 0
Birchington	16 0	12 0	8 0	Ramsgate	16 0	12 0
Broadstairs	16 0	12 0	8 0	St. Leonards	16 0	12 0
Canterbury	14 0	9 0	7 0	Sandwich	16 0	12 0
Deal	16 0	12 0	8 0	Sandwich	16 0	12 0
Dover	17 6	12 6	9 0	Shorncliffe	17 6	12 6
Elkstone	17 6	12 6	9 0	Tun. Wells	8 6	5 6
Hastings	14 0	10 6	8 0	Walterton	16 0	12 0
Herrne Bay	14 0	10 6	8 0	Westgate	16 0	12 0
Hythe	17 6	12 6	9 0	Whitstable	14 0	10 0

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Hythe, Margate, Ramsgate, Red Hill, Reigate, Sandgate,
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1.35, 3.55, 4.55 and 6.15 p.m., and from London Bridge, 6.55,
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The Stock will be secured upon the General Rates
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by the Local Act of 1875, calculated to secure, at
the expiration of 60 years from the 1st January
1876, the redemption of the said Stock.

The proceeds of the Issue will be applied in the
ing of the New Central Criminal Court House.
The Rateable Value of the City of London on the
1909, was £5,503,755, and a rate of one penny in the
pound produces about £222,932.

The existing Loans chargeable on the said Stock
to £1,692,000, but in connection with two of the
are Sinking Funds amounting together to £745,775,
net liability of £946,225, which will be increased by
by the present issue.

The Bonds of the Stock will be kept at the Bank of
England and Transfers will be made by
Transfers will be free of Stamp Duty.

Dividends will be paid half-yearly at the Bank of
England on the 1st February and 1st August. Dividends
will be transmitted by post.

A full six months' dividend on the total nominal
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Applications, which must be accompanied by a
25 per cent. will be received at the Chief Cashier,
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of partial allotment the balance of the amount paid
will be applied towards the payment of the first
should there be a surplus after making that payment
surplus will be refunded by cheque.

Applications, which may be for the whole or any
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be made of a less amount than £100 Stock; but
once subscribed will be transferable in any amount
multiples of a penny, as follows:—

The dates at which the further payments on account
Loan will be required are as follows:—

On Tuesday, the 19th August, 1909, £21,125 per cent.

On Tuesday, the 31st August, 1909, £25 per cent.

On Tuesday, the 14th September, 1909, £25 per cent.

but the instalments may be paid in full, on demand.

News of the World, July 26, 1909

In spite of the interest with which the preparations to fly the English Channel have been watched and the admiration evoked by M. LATHAM's plucky attempt, the news that at last the feat has been accomplished will come to most Englishmen as a shock. We are a cautious race, sceptical of all innovation, and not a few have at heart disbelieved the probability of success, at least for many years. But here it is ; conjecture and theorising are at an end: this country not only can be, but has been, reached by mechanical flight. The first thought must be that of admiration for M. BLÉRIOT, and everyone will be ready to join in the enthusiastic congratulations of those who were able to greet him in Dover. We publish a full account of the flight from Baraques to the landing place in the fields behind Dover. So rapid was the journey through the air that although the intention to make the flight and the actual start were signalled by wireless telegraphy to Dover the preparations which had been made to notify the townspeople could not be used, and before warning was given the attempt had already been crowned with success. While fully and freely congratulating M. BLÉRIOT, it is impossible not to feel a touch of jealousy that this historic achievement has not fallen to the lot of an Englishman, the more so when it is realised that M. BLÉRIOT's success is due not to personal prowess alone but to the fact that his countrymen had been working without stint of time, money, or enthusiasm to perfect the instruments which have made his triumph possible. If the problem of flight was of scientific interest or even of commercial utility alone this country could afford to look with equanimity at the progress other nations are making, but since at the present time the practical aspect of flight which absorbs attention and completely overshadows all others is the use of flying machines in time of war, no nation, and least of all the United Kingdom, can afford to be one whit behind the foremost of its competitors. It is difficult for the ordinary citizen to realise that the progress made in flight during the last year alone is revolutionising many of the accepted ideas of warfare, and threatening the traditional safeguards upon which this island has relied in the past. While in other countries the sight of an airship steering a deliberate course from point to point is rapidly becoming too commonplace to need comment, here such a spectacle is not merely rare ; few believe it possible. In so far as the crossing of the Channel comes as a surprise to the Englishman it is because he lacks the opportunity to appreciate the meaning of flight which is given to the population of foreign capitals. Many Londoners have in the last week realised more about the Navy than ever in their lives before, simply because they have been able to see the ships of which they have so often read. The Navy holds its place secure in immemorial tradition ; the necessity for its supremacy is recognised, but if this new need of a new form of fighting machine and of a new expenditure is to find its true place in the national mind the ordinary man must be roused by the sight of airships, and must be roused at once. The idea that any country can wait and watch foreign developments is a perilous one, for progress is so rapid. Only a year ago flights of a few minutes duration were startling and almost incredible. To-day the Channel is crossed. Just as the flights of the WRIGHTS in America were disbelieved in this country so the progress and achievements of the dirigible balloons with which France and Germany are equipped receive only a cursory and half-sceptical attention. They rather than the heavier-than-air machines are the craft which must be accepted as a vital part of the preparation for national defence. For many years it is improbable that any form of aeroplane will be developed far enough to carry the equipment of men, armament, and wireless telegraphic apparatus which will make them formidable engines of war, but the dirigible is already established as a potent military machine. Every month great advances are made, and every month of delay increases the danger. Yesterday's success must bring home with new force to every thoughtful man the pressing need for educating this country. The continued support received by the National Airship Fund provides the means. It is seeing that is believing, and it may be hoped that soon every important town in the country will have had the chance of believing in the necessity for the energetic construction of military airships because it has itself seen a modern dirigible.